

California State Journal of Medicine.

Owned and Published Monthly by the

Medical Society of the State of California

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VOL. VII AUGUST, 1909. No. 8

EDITORIAL NOTES.

In the vast majority of cases, suits for malpractice are nothing more nor less than attempts at blackmail. A great many of them are brought, not with the idea of really fighting them in court, but as a means to make the physician compromise by paying a few hundreds of dollars and thus have the suit stopped. The argument which the clever attorney puts up is to the effect that it will cost the doctor several hundred dollars to fight the suit and that he had better have it stopped by paying a couple of hundred dollars or so to the plaintiff and thus settle out of court. How many physicians are robbed this way every year, it is, of course, impossible to say; but there must be a good many. It is this, and not the danger from a legitimate suit, which has made medical defense insurance so very profitable. A physician who is insured is not in much danger, for the blackmailer avoids suing or trying to bluff a rich corporation with salaried attorneys that can afford to fight. A general recognition of this condition of things has existed in the minds of medical men for a good many years and there has been a growing feeling that physicians should unite to protect themselves against this form of blackmailing graft. It is outrageous that a physician who has done his best for some patient, and probably has done the best that could be done, should be held up by any rascally lawyer who wishes to do so. Thus it has come about that medical organizations have undertaken the defense of their members against such unjust attacks, and have adopted what is generally known as medical defense.

On June 24th, 1909, the Council of the State Society had a special meeting to consider plans for

MEDICAL DEFENSE.

medical defense, acting under instructions from the House of Delegates. After a very careful discussion of the question, it was decided by the Council to undertake the work at once. In Pennsylvania, medical defense has been in force since 1905 and has cost the state society not over ten cents per member per year. In New York, the work was begun in 1906 and has cost the state society about fifty cents per member per year. In New York, the very first year the plan was put into operation, malpractice suits were decreased in number 25%; in the first two years of the work, not a single verdict was obtained against a member in any suit which was defended by the society. Since 1906, six other state medical organizations have undertaken the defense of their members, and in every instance the plan seems to be working satisfactorily. With these facts in view, the Council decided to undertake the work at once and to carry it on until the annual meeting, next April, when the House of Delegates may pass upon the matter as presented to them at that time. It is believed that the work can be done successfully at a cost not to exceed \$1.00 per member per year, and possibly very much less than that when the work is once started and well organized. For one additional dollar a year, or possibly less than that, you can rest assured that you will not be blackmailed out of any money by this alleged malpractice suit game. The State Society has an attorney retained to look after this work; it is no additional expense to any member; he knows that he will be defended and the suit fought to the last ditch, without compromise. A number of county medical societies have already discussed this proposed work and have written their approval to the Council; if your society has not done so, have it taken up at once, discussed, some action taken, and then advise the State Society Secretary, so that it may be a matter of record. It is quite possible that there will be some members who will not wish to pay another dollar a year, even to secure this absolute protection against malpractice suits. But doubtless the number will be small and a good many who are not now members will desire to join their county societies when they realize that this benefit—a very real and tangible one—has been added to the other benefits of membership.

Now how is the plan to work out? What must you do to secure this ample protection by the State Society? It is very simple. Indeed, the sense of the Council was

WHAT TO DO.

that the machinery should be made as simple as possible, in order to give the fullest protection and the least inconvenience to the members. In the first place, be sure that your dues are fully paid up in your county society; only members in good standing, dues paid, are eligible to this protection. That being done,

if you are threatened with a suit, either verbally or by letter, communicate at once—*within twenty-four hours*—with the Secretary of the State Society, so that the matter can be taken up immediately by our attorney; this will, in very many cases, be the end of the matter. If you are threatened by letter, send the letter to the secretary together with a full account of the case, name, date, diagnosis, treatment, names of witnesses, nurses, consultants, etc. If you are served with a summons in a suit, this document, or an exact copy of it, must be sent *within twenty-four hours*, to the Secretary of the State Society, who will at once place the case in the hands of our attorney; all details must be sent at the same time, so that the attorney may be in possession of all the facts in the case. You will then be sent a blank to fill out and sign. This will authorize the Society to defend the action, through its attorney, and you will agree not to compromise or settle the suit without the consent of the Society, through its attorney. No judgments will be paid by the Society, but all costs of defending the suit will be paid by the Society. You will agree not to obligate the Society in any manner to the payment of any sums whatever. In other words, you turn the defense over to the Society, which will pay all the costs of action, and agree not to meddle. Is not that sufficiently simple—and safe?

All this medical defense work and the funds to pay for it will be in the hands of a special committee of the Council. They will

HOW IT IS DONE.

stand back of the attorney, and of course back of them is the whole Council and the State Society. Each county medical society will be asked to appoint, as soon as may be, a committee of three on medical defense. It will be the duty of this committee, when a member of the Society is sued or threatened with suit, to investigate the case and make a full report of the exact facts. These suits are dependent upon matters of fact and not matters of law, and so it is essential that all the facts be in our possession at the earliest possible moment. When a local attorney is required to attend to an action in some distant county, he will be chosen in some satisfactory way to be determined; probably by the joint action of the defendant, the county society or its committee, and the attorney for the State Society. The main idea, however, is to get quick action; to let people know that we are not to be bluffed or blackmailed; to protect ourselves and our members from unjust and iniquitous attacks, and to do it as quickly and as thoroughly as possible. Now a word as to what *not* to do. Do not wait till a suit is actually filed against you, if you have reason to believe that it is coming; let the Secretary know about it at once, so that the attorney can take it up and perhaps prevent a suit. If a suit is filed, do not think about it for a few days and then write; write at once and send the papers and the facts to the Secretary. Do not employ a lawyer until the Secretary has been communicated with, unless you wish to defend the case yourself and not have the Society do it.

Judging from the number of copies that have been sent to the JOURNAL office, every physician in the state must have received the very remarkable circular letter sent out by the "Union College of Osteopathy," apparently located at Wheeling, W. Va. The offer contained in the circular is supposed to be very flattering; you are to be taught osteopathy by mail at the modest cost of \$60.00 for the course, including the beautiful diploma. It is a special course for physicians who are urged not to lose all their patients to osteopathic practitioners, but to take this taught-by-mail bunch of canned information and thus become the real thing. It is unfortunate that this should come up at the present time, when the osteopathic standards are being raised in this state and when a fairly good number of applicants to practice osteopathy are passing our state board examinations and thus showing that they are really qualified; it will only tend to excite antagonism that was on the decline. It is exactly the sort of thing that certain medical diploma mills were doing a decade or two ago: turning out unlimited numbers of degrees, if the money was forthcoming. It was the examining board that put the medical diploma mill out of business; it will be the examining board that will put the osteopathic diploma mill out of business. That these institutions will exist until the various states require all applicants to practice any sort of healing art to pass the same examination, goes without saying. The independent examining board in every sort of cult merely permits these abuses. The one board law and the same examination for all, puts an immediate stop to this particular game of fraud.

The subject of reciprocity between the states in the matter of license to practice medicine, is discussed most sanely by Dr. Jno.

LICENSE RECIPROCITY.

C. King, of Banning, in a recent issue of the *Southern California Practitioner*. Dr. King is certainly entitled to be heard upon this question, as he served for some years on the State Board of Medical Examiners and made a most careful study of the law and its operation. At the time that Dr. King was a member of the board, and its president, there was a clause in the law permitting the board to reciprocate; but the board never put the clause into operation. He most clearly points out that as medical education advances, the cry for reciprocity becomes more faint and its operation is regarded with less favor. Twenty-four states are united in barring reciprocity, either actually or practically, and several others have such intricate machinery as to make it nearly a dead letter. "In many states the law, wisely I think, discriminates against the old practitioner." Dr. King's point is that physicians who do not keep up their reading and their study should be prevented from treating the sick. He cites the well-known procedure of the government in dealing with its Army and Navy surgeons; at each stage of their official life they are subjected to examination; it is

not assumed that they have kept up; the fact is determined, before promotion, by a rigid examination. The suggestion that the same course be pursued with regard to physicians generally—that they be examined at intervals of years and their license be time-limited and contingent upon their passing such an examination, is, theoretically, most excellent; but we are afraid that it will find but little favor amongst physicians the country over.

The attempt to get physicians financially interested in concerns, either good, bad or indifferent, which manufacture the things that physicians use, is as old as the hills. The argument is always the same. In the present case we quote it from a letter addressed to a member of the Society by a gentleman who deals in "investments," and in this instance is trying to unload an unknown number of shares of stock in the "Olivoint Chemical Company, with office and laboratory in San Francisco." It may be said in passing that an inquiry as to advertising in the *STATE JOURNAL* the products of this company came to us some time ago and the applicant was advised to submit his preparations to the Council on Pharmacy and Chemistry, after which we could discuss the matter. So far as we are aware, the preparations have not yet been submitted to the Council for investigation. The letter says, among other interesting things:

"An opportunity is offered you to obtain an interest now in a growing concern whose products rank with the best. Instead of making money for other people, you can become a stockholder, and every time you write a prescription you help build up the company, add to the value of your stock and increase your yearly dividend."

And there you are. Just think of your profits; don't waste any time thinking about the patient or the unnecessary prescriptions you will write and the patient will have to pay for; just think of your profits and the rapidly growing value of your stock. That's the main idea; keep it well in mind; think of the money. That there must be a good many physicians who will go into these things is evidenced by the number of them that come along. It is charitable to believe that those who do so invest do not see the matter in its proper light; do not realize that they are being seduced into a sort of petty graft that puts a few dollars into their pockets, very many dollars into some other fellow's pocket, and takes a lot of money out of the patient. It is only human nature to believe that the man interested in such a concern will order the purchase of its products on every possible occasion, whether they are strictly necessary or not; it is to his financial advantage to do so, and he will do it in spite of his better inclinations and without thinking of what he is really doing. Indeed, that very fact is emphasized in the letter quoted and that phase of human nature is just exactly what these people all bank on to make added

profits for themselves. It is not nice to have to admit that physicians will do these things, but there are the facts.

A most notable advance has recently been made in the work of giving proper medical supervision to school children. The subject has been commented upon and commended a number of times in the *JOURNAL*, and the good work that has been done by Dr. Hoag in Pasadena has attracted no little attention. It is a pleasure to note that his usefulness is to be greatly extended, but Pasadena will be the loser by his taking away. Dr. N. K. Foster, so long the efficient Secretary of the State Board of Health, has been appointed Medical Director of the Oakland schools, and Dr. Hoag has been appointed Director of Hygiene and Medical Supervisor of the Berkeley schools, with a lectureship in the University on School Hygiene. Thus it is seen that these two most excellent men are to work together in the sister cities; that their efforts will be in common, and will bring to Oakland and to Berkeley very decided benefits, can not be doubted. Most of our communities are strangely blind to one of the most important and vital questions that presents itself to a growing community—getting its children started right in the world. If the children do not get a fair and a right start, how can they be blamed for going all wrong later in life? How many a child has been driven into crime because of some physical defect, unnoticed in the years of his development, but always acting as a drag upon his proper mental and physical growth? The fairly good salaries which are to be paid these two gentlemen for their work in the schools will be returned many fold to the cities employing them. A medical supervisor of school children is as good as a whole juvenile court system, when it comes to preventing children from going astray. Our hearty congratulations are extended to the cities of Oakland and Berkeley; that the work which Dr. Foster and Dr. Hoag are to do will be well done, needs no saying.

Just at the present time there are a half-dozen or more good locations open for the right men; some of these are practices for sale and some are not. In any case, the amount of money involved is not large and covers only the material outfit. One is a particularly fine chance for a young, sober, industrious and well prepared physician to step right in with an older practitioner and take up a very fine practice; but it must be a well equipped man who is capable of doing ordinary laboratory work. If you know of some physician who is not located or who is about to make a change, just drop a line to the *JOURNAL* office, or to the Secretary, and you will be put in communication with some one or more of the possible chances. Let us know what part of the state you prefer, for these openings are scattered from North to South.

SCHOOL HYGIENE.

SOME OPEN LOCATIONS.

ORIGINAL ARTICLES

PSYCHOTHERAPY.*

By W. JARVIS BARLOW, M. D., Los Angeles.

The time has come when the interest in psychotherapy is being seriously considered by the medical profession, and discussions of this subject, by physicians, no longer bring to their hearers the suggestion that we are getting away from the scientific treatment of patients into the field of cultism. It is the purpose of this paper to direct attention to the advance made in this treatment, and give it the place it deserves in scientific education and practice. Too long have we considered this belonging to the occult and mystic and have seemed afraid to accept the true value of mental and moral treatment. There has been a feeling, with large medical representation, that psychotherapy and all its branches was only a fad to meet existing conditions and would soon disappear as other fads have come and gone. To those who have seriously considered this subject, there has come the conviction that there is nothing new in psychotherapy, that it is no fad except for those who make it so, but that we are just beginning, through scientific investigation, to understand and develop a treatment that has always, in one form or another, been used by every physician and surgeon who has successfully treated disease.

From the earliest history comes the record of cures by supernatural and magic means. From the Temples of Isis and Aesculapius—through the age of magnetism, mesmerism and hypnotism—has developed an understanding of what these results in cure really mean and a method for the present age that seems now more natural. The future change in the treatment of the large class of diseases reached through suggestion will develop through the present wave of psychotherapy to meet existing conditions. Our knowledge of psychic influences on mental and physical diseases we owe chiefly to the development of hypnotism, through the studies of Charcot, Bernheim and Janet. For results of cure without the aid of hypnotism, through suggestion, persuasion, reasoning, re-education, etc., the teachings of Weir Mitchell, the studies of Du Bois of Bern and Barker of Baltimore, need no further exploitation. It is to the enthusiasm and knowledge given us by such men, and the neurologists who have made a study of psychology, that we owe the fact that more of our patients have not sought the necessary aid from outside the medical profession.

When scores of people are being cured by lay, unscientific people (I care not if these be proved functional neuroses, moral obsessions or neurasthenics, they are diseases that doctors have not helped to cure), there is something omitted from our treatment which we, if true to our vocation and training, should use. There is no one to whom I speak but must know and realize that there is much more to medicine and surgery than, after ex-

amining our patients, the prescribing of drugs or performing a surgical operation. The physical, mental and moral conditions of each must be satisfied. How many of us carefully note the physical findings and omit any notation of the mental or moral? This fact stares glaringly at us and must be judged by each correctly and honestly. Where is the fault that our patients seek relief in Christian Science, mental cults, faith cures, or the Emmanuel Movement? It will not do to say that they are merely emotional and need some form of mysticism or religious awakening which has been inherent in all humankind since the beginning of time, and that these individuals are at present straying from the right way. Exceptional is it that such is the case, but rather are the mass getting something which they need and which we can give but often do not. It must be here admitted that there is an epidemic raging which will not last, but from which much can be learned by the profession and much good for better treatment result. The causes of this epidemic may be somewhat obscure, but there is sufficient reason for all existing conditions. The great studies that have been made in surgery have saved hundreds of lives that could not have been saved by other means. Surgery, considered wholly scientific and positive, became so popular that most men wished to become noted surgeons, and even the youngest attempted major operations. Most necessary operations were done, and some that were not necessary. Has this been entirely corrected? Have these mental and nervous symptoms of your patient been always relieved by the operation performed for this result? Have surgeons ceased to consider surgery a means of therapy? Do they still recognize that a surgeon must be primarily a good physician? These are pertinent facts for surgeons to consider. The relations between medicine and surgery are well brought out by Sir Clifford Albutt in his lecture before the American Medical Association some years ago.

Findley,¹ a gynecologist, says that physicians are too prone to insist on a pathological basis for all diseases and fail to recognize the existence of purely psychic disorders which have no organic basis but are psychic in origin. This fact is true of the gynecologist who locates the existing cause of nervousness in the uterus and ovaries, and at the time of Emmett and Battey, saw in erosions and lacerations of the cervix the incentive for all sorts of neuroses.

Too often there is no connection between the two conditions, and the physician who examines a neurasthenic patient and tells her of lesions in the pelvis of which she has had no knowledge, often does untold harm. The case often needs the help of a neurologist rather than a gynecologist.

Medicine as a science has recently become more popular through the great studies made in the laboratory and resulting in the prevention and cure of certain diseases. Internal medicine is more respected by the surgeon, and bacteriology continues to be most useful to both. With the brilliant results of anti-toxin, and positive relief afforded in a few

* Read at the Thirty-ninth Annual Meeting of the State Society, San Jose, April, 1909.

diseases by specific sera, has come an overenthusiasm and overestimation of sero-therapy; and a few men would have the people believe that they must be injected for every disease. Here is a cause which must be remedied in our own ranks. Has this been corrected and medicine not claiming too much? These are pertinent questions for medical men to consider.

Now to the sick room itself, and to the patient who would seek the office constantly with a chronic disease. Is such patient getting all the help needed? When the mind or nervous system is abnormal, either in primary or secondary trouble, is he getting from you the thought and time so necessary—in other words, the proper psychic treatment for psychic trouble? When mental and moral help are not yours to give your patient, is the neurologist asked to come and furnish the right suggestions and help? or, when spiritual help is wanted, is the priest or pastor notified by you and asked to do what you think the patient needs? If we, as physicians, would carefully note such facts and observe closely the requirements of our patients, not only the physical but the mental and moral, there would be no necessity for the church to try to take our place, which she is not trained to do. Unquestionably, the age of materialism has been a great factor in causing the existing conditions. The physician and the clergyman should be co-laborers in the field for the betterment and uplifting of mankind, for each has his own work and sphere of labor, and in co-operation the best work for humanity can be done. There is no necessity, however, for one to assume or take the place of the other. The physical and mental diseases have belonged to the physician since the time of Aesculapius, and there is no need to change it at the present time.

Again, great benefit by specializing in medicine has resulted to the public, and particularly so when a man has specialized after general work. Over-specializing is doing harm and not giving patients what they seek. Unless the specialist knows all about the general condition of his patient, he cannot do justice. Here, team-work with the general practitioner must be had to be just to the patient, else the profession had better return to the family doctor. It is with the general practitioner, after all, that most cases find the greatest satisfaction, because he enters more into their lives and knows their failings and faults; he has the opportunity for suggestive treatment on lines that the specialist fails. Only a *consultant* can afford to sacrifice the personal relation to the patient who really wishes only his expert professional opinion. How many specialists see that their patients get from others than himself what they need? It is entirely possible that practitioners of medicine and surgery might themselves provide this necessity. This, however, can only be done by adding to our medical training such instruction as has hitherto been lacking.

Medical Schools: Here comes a plea for introducing into our medical schools a course of psychotherapeutics such as has been done this past year in the Tufts College Medical School under the title

of Principles of Psychotherapeutics, based on psychopathology.

It must be admitted that considering the large number of nervous patients, those in whom no organic lesion can be discovered, that frequent the offices of the practitioner of medicine and surgery, the profession has been wholly negligent in not demanding instruction in the modern methods of psychotherapy in our medical schools. Dr. Morton Prince² has emphasized this since the advance in knowledge of the pathology of symptoms of the psychoneuroses has made such strides through recent investigations that these diseases should be systematically studied and become the subject of regulated instruction. He thinks it strange that functional diseases and psychoneuroses should hold such insignificant places in our curriculum, and the reason is that the diseases are obscure and lack the definite character that appeals to the intellectual and scientific man. Partly for this reason he thinks has developed the crude and unscientific systems of psychotherapeutics known as Christian Science, mind and faith cures, etc., which should be a reproach on medical education and not denounced as evils. There is none better fitted to treat any form of ill-health, including all neuroses, than men who have given their lives to the study of human physiology and pathology; but until the student of medicine has familiarized himself with the recent methods of handling the disordered mind or vagaries of the neurasthenic, he must expect those suffering from functional neuroses to be often successfully handled by unscientific and frequently uneducated laymen, who though skillful in speech and suggestion, could not pass the examination of a first year medical student.

There is so much in psychology yet to be learned, and the subject is so vast, that it would be impossible to have our students well trained in this branch; but at least an elementary study of psychology could be introduced which would change the attitude of our younger members toward the patients suffering from functional neuroses. By attitude is meant the causes that result in our ignorance and impatience toward a purely nervous trouble. That there is a physical basis for the symptoms present is well recognized; the exhaustion accompanying the attacks must be treated with physical aids as well as through suggestion, and we should never lose sight of such facts. The neurologist may explain the difference in a case of psychasthena and one of neurasthenia—the terms mean much the same to the writer—but perhaps psychasthena sounds more fitting with psychology and neurasthenia with suggestive therapeutics.

We may expect something from the interest the subject has produced in eastern cities, the establishment of the Phipps Psychiatric Clinic, with a \$1,000,000 endowment, at Johns Hopkins Hospital, and the proposed establishment of a similar hospital at the Massachusetts General Hospital by the State of Massachusetts.

By instructing our students to treat these cases under modern psychic methods, we are training ourselves to meet the advances made in this treatment

by our scientific neurologists. If this is not done and seriously conducted, we are leaving certain diseases to the care of laymen and outside movements where leaders who have no medical knowledge assume the attitude of knowing how to treat and cure patients that the medical profession cannot or will not. Christian Science has awakened us most thoroughly to such a view; though unscientific and wrong in its teaching and its denial of the existence of diseases, it has, through its mystic influences and power of faith, given to many the relief not received in legitimate ways. So much at least must be admitted. Social workers also have added to our knowledge of psychic treatment, and now the Emmanuel Movement adds further instruction for our guidance. This movement would unite religion and medicine, and make clergymen do a work in which they are untrained and which essentially belongs to the medical man. Without assuming the practice of medicine, the church has more than it can do in its own sphere with the moral and spiritual training of its people; besides it has the further extensive work on social lines and may justly instruct its people to live hygienic, healthful lives, leaving the treatment of all disease, functional or organic so often inseparable, to the doctors of medicine and surgery.

Classification for Treatment: The methods for the therapeutics of suggestion are not as yet clearly classified, but each reaches its results through a similar course—by its effect on the mind conscious or unconscious. Whatever the method employed, the same thing—suggestion with other aids—is used.

In order to state more definitely, we will form what seems a rational list of methods for using suggestion as we know it to-day, modified after Edes;³ it is, however, assumed here that each method is a form of suggestion, and may be used indirectly or directly by the physician.

1. Positive assertions with aid of drugs, rest or exercise, massage, hygiene, diet, electricity, etc.
2. Persuasion and encouragement with similar aids.
3. Instruction and re-education.
4. Confession, including the Cathartic or Analytical method of Freud.
5. Deception with use of placebo.
6. Hypnotism.

First—Positive assertion: This form of suggestion is used by every successful physician with the aid of remedies and material things at his command. When giving a drug or prescription for massage or electricity, we tell the patient what result we expect, and depending upon how much confidence the patient has in us, so, often, will be the result. With this method we have the same power for good suggestion in ordering rest or exercise, diet to be followed, or the principles of a hygienic life. Much depends upon the positive way the suggestion is given, if the orders are to be followed.

Second—Persuasion and encouragement: These words speak for themselves and are powerful aids to the physician in combating any trouble, whether

organic or functional. This method, too, is used by most practitioners, consciously or unconsciously, with similar aids, in the way mentioned above.

The isolation treatment, practiced by S. Weir Mitchell, is an important factor in his rest cure, and would come under this heading. The results he has obtained can only be duplicated by a man of similar magnetism with a like power of persuasion, so that as many cures have not resulted elsewhere.

Third—Instruction and re-education: This method is fully understood by all neurologists, who find it most helpful. The element of time and patience is here a great factor, and unfortunately, too many men have neither the one nor the other to properly use it. Yet there are many psychasthenics who require just such training, and it is to the medical adviser to see that patients get what they need. Assistants, properly instructed, could carry out the treatment. They usually have the time and patience; but, unfortunately, so many of us are not broadminded enough to see the value of such teamwork, or are too commercial to have the necessary assistants. This method and that of the former, "Persuasion," are the forms so successfully used by Du Bois of Bern, and gave the greatest stimulus to suggestive therapeutics by his book—"Psychic Treatment of Nervous Disorders."

Exercise with a purpose in view belongs to this method and has been found most helpful in chronic diseases both organic and functional, such as gardening for the neurasthenic, graduated labor for the tuberculous, and mental diversion for the insane.

We have in the three above methods the most powerful suggestive agents in the treatment of all diseases, but especially the psycho-neuroses. The three others are of minor importance, if the fourth—Confession—may be excepted. This method of Freud's, called "Cathartic," based on the fact that some sexual disturbance or abnormal sexual habits have earlier been the cause of hysteria, has not been made of general use. Freud says that it takes six months to three years to bring about successful results with the treatment, which would seem of itself an objection; but from the results that Freud has reported, where other methods have failed, his treatment will be further studied.

This method is freed from hypnotism, and, contrasted with other methods, the results are not supposed to be due to suggestion. It is impossible to see how indirect suggestion can be excluded under this method; the very fact of asking the patient not to suppress any painful or shameful thoughts is in itself an indirect suggestion. Dercum⁴ discusses this treatment at length, giving the limitations and objections, and concludes that it offers doubtful advantages. "In certain cases," he says, "even the rehearsal of sexual details, repulsive and revolting, probably does harm rather than good."

Fifth—Deception is too often made a part of psychotherapy. The use of placebo should be discouraged as in most cases deception is entirely unnecessary. Never should chronic cases be deceived

through suggestion, for any one who has considered the matter carefully will find that a frank explanation and understanding with the patient will not only prove the right course, but will bring the desired results. It is, however, conceded that deception and the use of placebo may be warranted in acute organic diseases with nervous manifestations.

Sixth—Hypnotism is only to be used in expert hands and is very rarely necessary. Personally, the writer feels that it is an unsafe and unwise procedure, when other therapeutic agents are equally successful.

The study of hypnotism, Barker says, has led to a great increase in interest in the effects of suggestion made in the waking state, both hetero-suggestion and auto-suggestion.⁵ Undoubtedly, through this method which is being rapidly discarded, we have reached our present knowledge of auto-suggestion.

Of the six methods it must be left to the physician in charge to determine which shall be used. Each case must be individualized. There is greater psychic power in the use of the second and third, the drawback being the time and patience required. It must be remembered too, as Barker says,⁶ that patients past middle life do not yield to psychotherapy so readily as those between twenty and forty years. An important fact, too, must not be forgotten, that childhood is most susceptible to suggestion. Physicians should instruct parents that a child from one to five years is ready to grasp any suggestion. It may be practiced in the sleeping as well as in the waking state.

Conclusions: This epidemic of moral and mental treatment, outside medical science, has done much to awaken the profession to the important fact that too many patients are leaving medicine for help gained by so-called new movements, and has stimulated scientific men to a closer study of psychotherapy.

To a few of our rank, who refuse to accept the situation seriously, it has seemed to weaken their respect for patients who need mental and moral treatment.

The remedy lies within our own profession.

Instruct individuals and the public and in all conditions tell the truth.

A thorough course of training in the suggestive methods, and a better understanding of psychotherapy should be introduced in our medical curriculum.

The classification and methods to be employed should be regulated by professional men who have given their lives to the study of diseased conditions.

Every physician should do his work well, whether he is called upon to treat physical or mental diseases, and not try, from any spirit of commercialism or unfitness, to hold under his care any patient who manifestly can be better cared for by a better trained person. The words of Reverend George A. Gordon,⁷ a Congregational minister, fit exactly the feelings of the writer: "It remains for the individual man to do the small bit of work for which he is fitted. to let religiously alone the work for which he

is manifestly unfit, and to bear in mind that about the best thing that good men can do for the noblest causes is to go through the world with a level head."

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Discussion.

Doctor J. T. Orbison, Los Angeles: Inasmuch as Doctor Barlow has been kind enough to ask me to discuss his paper, as my impromptu efforts are generally abominable, I will ask to be allowed to read what I have to say. Psychotherapy, like drug therapy, may be divided into good and bad, wise and unwise. Just now the whole world and his doctor is looking at it through a powerful magnifying glass. What the world sees in this way must therefore be distorted and partake of the unreal. The means of measuring values being a magnifying glass, the objects viewed, both good and bad, must appear out of proportion to their normal worth. To speak in terms of psychology, the mental picture that the world sees is one of disassociation; it is a magnified field of vision that is arbitrarily split off from its surroundings. In fact, it is just that kind of an abnormal mental picture which an hysteric sees in his own mind's eye. The cure for such a disassociation in an individual can be effected by psychotherapy; the cure of national hysteria must likewise come, in the main, from us physicians. But—how can the physician teach unless he knows what he is put to teach; and how can he know what to teach unless he in his turn has been taught? A new duty is imposed upon the up-to-date medical schools. It is such papers as that of Doctor Barlow, coming from one who is in touch with the processes of teaching medical students, that will point the way and blaze the path. The world looks through its magnifying glass and sees various conditions at work. They all appear big and their relative worth is lost sight of. There it sees Christian Science. Near by to Christian Science and somewhat in the shadow is seen the Emmanuel Movement. Not far away is New Thought. Older than them all but arrayed in new garments is Psychotherapy. Now, the world has learned by much hard experience that it pays to stick to truth and honesty. So, when it has become convinced in which camp rests the Ark of Truth just so will the end results be as follows: The Queen Bee of pathological auto-suggestion, psychic auto-intoxication, to use a more scientific term, Mrs. Eddy will take her place with the Mesmers, painless-Parkers and Perkins Fractors. Another end result will be the sight of medical students hot-footing it to the lectures and clinics of the neurologist and psychiatrist, where they will be taught some useful knowledge relating to the mental processes of their future patients, which mental processes, by the way, primarily determine about fifty per cent of their ills and ailments.

And this is only as it should be. In this country we are steadily building up our own methods of procedure in psychotherapy. These methods have been thoroughly tried out and are standing the test of American high-pressure nervous diseases. It is no longer for our students to rush over to Germany, France and Switzerland to take a hasty psychotherapeutic quick lunch only to hasten back home for its emesis. Of course it would be an excellent addition to the home course to go to Paris and see Professor Dejerine's ward, or to Berne where Dubois holds sway. Or to Nancy where Professor Bernheim does

his own work in his own way, as the apostle of hypnotism. Morton, Prince, Putnam, Mills, Dana and Mitchell, of this country, and many more of the leaders in neurology, do not place as much confidence in Duboise as do many physicians who have read his book. His methods are too spectacular and, like Rev. Dr. Worcester's cures, too easy of accomplishment to be lasting or real. The glamour of a personality may hold in abeyance the symptoms of a grand hysteric but it does not cure permanently. As was said before, it is not necessary for our young men to go abroad to receive instruction in psychotherapy. If they do so they will view clinics filled with the excitable hysterics of the Latin race, or the phlegmatic inertia-loving Teuton. In America we have a different problem to solve, and we must solve it in our own way. In fact, Doctor Wharton Sinkler of Philadelphia, my honored chief at the Orthopedic Hospital, told me more than once that he considered we were way ahead of the French and Germans in our methods, especially in our private practice methods. Now, the question is—what is to be done? Doctor Barlow has thrown out the right suggestions and laid down a good working model, as far as methods of treatment go. And he gives six of these methods for consideration. The man who treats any considerable number of nervous cases must know methods and will in time work out his own. The student of medicine must know rather the normal and pathological states of the mind and the methods will follow. Doctor Morton Prince gives the classification of subjects he considers necessary for the student to know. Thus, we are working along scientific lines and gathering data from which to formulate our knowledge about the mind, its abnormal states and the treatment of these states. When we have worked it out we can impress it upon this nation. The American people may be relied upon to see pretty clearly after they are told, though they get unmercifully bitten during the acute stages of their hysterias.

This is no place to go into any general discussion of such a big subject. The time is much too limited. There is no doubt as to the demand made upon us by the public. There is just a little doubt concerning the awakening of the profession. Three formal papers will be read to-day. Look in the literature, up to 1906, how spare it was! Since that time how fertile. This means something. Not only is there a growing literature but it is not now confined to the Journals of Neurology, Psychology and Psychiatry. On my desk are ten journals and as many more could be added, each containing one or more papers on the subject of psychotherapy, and these ten are not journals of neurology at all. This has an immense meaning. The medical and lay mind is at work. The eyes are open. The magnifying glass will soon be laid aside, the hysteria past and the truth retained. The rest will be swept aside. It were the part of wisdom to meet the demand made upon us physicians in a spirit of wise endeavor to teach the truth that is known and hunt for that which is yet hidden. If we do not we too will be found amidst the sweepings.

Doctor H. D'Arcy Power, San Francisco: When it is suggested that the medical profession should make more extensive use of psychotherapy on the ground that outside practitioners often command undoubted success, it seems to me that an important difference in our relation to the patient is overlooked. As physicians it is absolutely necessary that we speak the truth, and this obligation places us at a disadvantage with most of the agencies that employ these methods. The cures effected are primarily due to suggestion, but for suggestion to be effective there must be a receptive condition of the patient's mind. Now if you study the history of the various movements using psychotherapy, whether

in the middle ages or in recent times, you will note that they first secure control of the patient's mind by religious enthusiasm, startling assertions, or some form of charlatancy. First comes wonder, then belief, lastly suggestion. The wonder is nearly always based on a lie. We can not take the first step, we therefore can not expect to attain the last with the same surety as those who are under no obligations to truth or are themselves the victims of delusion.

Doctor J. H. Parsegan, San Francisco: I am glad indeed to know that the medical profession is taking an interest in this new movement. A few years ago when I started with this treatment the circle was very small indeed and great objections were raised by members of the County Medical Societies. It is a fact, however, that we medical men have to be driven by the laity before we take up the branches which it wants. The osteopaths had to show us the need of massage, the Christian Scientist is teaching this new doctrine. We are supposed to be large in our scope and charitable, but if we would look into these methods as they come to our attention we would do well. We are supposed to be educators and philanthropists, but we are too ready to turn down new ideas. Now psychotherapy is a science with us, but we must confess that we have been using it unconsciously daily. The surgeon is using it when he tells his patient that he will surely come out all right from the anesthetic. That is a better dose of medicine than morphin or strychnin. Take cases of hysteria; in most of these cases you will find after having devoted six months or a year with first one physician and then another, that they fall into the hands of the Christian Scientist. If when we are giving our drugs to those cases we would take the time to sit down and listen to the troubles and talk to them using a little Christian Science we could do as much within that time as we could by writing our prescriptions for a week. We must acknowledge that the mind has power over the body. The time has come when psychotherapy will be of value to both the layman and the professional man. It is necessary that we should educate the people and have their support.

Doctor Wm. Fitch Cheney, San Francisco: This is a subject in which I have been interested for some time. While in accord with what Doctor Brown and Doctor Barlow have said, still there are certain points which remain to be emphasized. First of all, we must admit the necessity for some psychotherapeutic treatment on the part of somebody. If we doubt the necessity for it, we have had the proofs. Thousands of people have, within the last decade, turned away from the regular methods of medicine and are loud in their assertions that they have found the cures which we could not give them. Just how it was done I am not convinced, but it has been done. I think every physician here will testify that we have had patients fail to respond who have gone to Christian Science and have become perfectly well. Admitting that there is something outside of our material methods of treatment, is it not well we should look into it and not leave it to other hands. Are we going to take up the work ourselves, or leave it to the clergy or to the charlatans of both professions? To me it seems that the whole question depends upon who is prepared to employ it, whether in the church or out of the church, in the medical profession or out of it. No man has a right to employ it unless he is fitted to do it. First of all, it depends upon his character. A man can not make suggestions unless he knows himself and he must have a good moral character, individuality, personality; and in the second place he must have training. He must understand psychology, he must understand what is meant by suggestion and by re-education, and until he is so educated he has no

business to try to employ the method. Our medical schools have been occupied with the affairs of the body, and have given no attention whatever to affairs of the soul up to the present time. Ultimately physicians will be able to employ psychotherapy, but not now as a class. For the present we have not the education, and to place this matter in the hands of men who are not prepared by character and by training to undertake it will inevitably bring discredit and failure upon the procedure.

Doctor E. von Adelung, Oakland: I would like to say just one word with regard to a point which was brought up and left unfinished in relation to the Emmanuel movement toward tuberculosis. I speak of this point because I am aware of a misapprehension that is pretty prevalent, and that is that the Emmanuel movement is something mystic that cures tuberculosis independently. Last September I visited the International Congress in the East, and I visited Boston and I looked around to see what this Emmanuel movement is in its relation to tuberculosis. I could not see myself how any form of psychotherapy could take the bacillus of tuberculosis out of the lung. I found that the statement of facts were these, that the so-called Emmanuel movement in tuberculosis consisted of a certain number of persons, who, seeing the great problem of tuberculosis throughout the world, conceived it their duty to help persons suffering from this disease. They did not go to them and say, "you are not sick"; they went to them in their homes and established a system of visiting the homes through their nurses and personally, and they got these people out into the fresh air and urged them to believe that this was the cure of tuberculosis, and they held out the hand of hope and in this way pursued the ordinary course of treatment. If this is anything peculiar which should be labeled "treatment of tuberculosis in science," I fail to see it. When we hear of the Emmanuel movement doing so much, it is because they are employing our methods. That, added to the encouragement which they hold out, and which it is really the duty of all of us to give, helps with the cures obtained. Many years ago I heard our tuberculosis authorities in this state speak, and it was emphasized that the personality of the physician in charge of these cases was of great import in the results obtained, and it behooves us to remember this. I have seen different classes of cases that had need of psychic treatment. In one case, for instance, I was called to see a man who had been six weeks in bed with great pain in the abdomen. I went through a thorough examination and found no organic lesion. I applied the psychotherapy in this case and in 24 hours he got well. In another case, a woman was operated upon in the right iliac region, and was three weeks in the hospital. She complained greatly of a continuance of pain, and after I worried over her case it suddenly struck me one morning that there was nothing the matter. I changed the treatment and applied the psychotherapy, and in three days the patient was up and has been well ever since. We have all had numerous cases of that kind. In another case, a girl of 8 years of age, was able to see with one eye and not with the other. It was merely a case of hysterical blindness, and instillations of pure water, with proper suggestions, were immediately followed with success.

Doctor W. T. Barry, Santa Barbara: Our profession is a scientific one, and I claim that anything unscientific should be let alone by us. It is granted that both Christian Science and the Emmanuel movement are both unscientific, and we should let them alone absolutely. I believe that we are on dangerous ground when we try to undertake this work, and that the next thing will be that we will be having spiritualistic seances.

Dr. J. D. Arnold, San Francisco: This is a ques-

tion which has been so often and thoroughly discussed that no one can hope to say anything new upon the matter. I wish to advert to one aspect of the subject, and that is the attitude of the medical profession towards psychotherapy as instanced in these modern movements. After all, they are a recrudescence of an old subject which in the beginning was only pseudo-scientific, but in our day really appears in the guise of true science. The two attitudes usually assumed toward the Emmanuel movement were very well illustrated by the two papers read to-day. Perhaps I should not speak of them as two distinct attitudes. They are the attitudes which a scientific man will take toward a subject at two periods of his education. Dr. Barlow made a full resume of the subject and abounded in wise advice. Dr. Brown probably found himself in that earlier situation at one time, and now assumes another attitude full of enthusiasm, and the latter does him great credit. If we are sincerely concerned for the good of our patients, we will welcome any means under Heaven that offers us promise to help us to that end. Of course, this is not entirely a disinterested view because Dr. Brown admits that the primary reason for sending his patient to the priest is because he really can not afford the time to treat that patient as he will be treated by his priest. That is an economic view of the question. Let us not forget a fact too often overlooked in considering this subject—namely, that the physician stands distinctly at a disadvantage as against any of these various cults, though all of them are not cults in the bad sense of the word. He stands in this point of disadvantage, that as a true and scientific man he can not deal on an equal footing with these people. He must be truthful, he must be sincere. He may not pretend to be the possessor of a power to heal and cure, though such pretense is an advantage to him in his ministrations. It is unfortunately true that in order to best affect the individual through hypnosis by suggestion in any other state, you have first to impose upon that individual. Take, for instance, such a performance as that of Carpenter or of Bishop. They carry with them a lot of fake subjects and put these subjects through their paces and by the mere exhibition of a false hypnosis, bring their audiences into a receptive state of mind for real hypnosis. During the performance of these fraudulent "tests," it is not at all uncommon to see a number of sensitives in the audience fall over hypnotized. In fact, the scientific physician must explain to his patient that what is to be accomplished by his ministrations is to be wrought by simple suggestion. This appears commonplace and has little effect in rendering the patient receptive. The "fakir" permits his subject to consider him the repository of a mysterious influence—a belief in which produces a very helpful receptivity on the patient's part. The quasi-miraculous cures wrought by the exhibition of the remains or relics of diseased saints belong to the class of "cures by suggestion." What would become of such results if the subjects affected by these and all other analogous kinds of "suggestion therapeutics" were given a complete understanding of the underlying scientific rationale, and the honest physician is bound to do this.

TRICHINOSIS.*

With a Report of Four Cases.

By A. M. TOWER, M. D., Lodi, Cal.

Trichinae are widely distributed, because of the wandering of rats, and, no doubt, inhabit the muscles of all carnivorous animals. As a recognized

* Read before the San Joaquin County Medical Society, March 19, 1909.

disease in man, trichinosis is limited to persons who eat rare or raw pork.

The parasite undergoes three stages of development:

First. The adults live in the small intestines, the male, one twenty-fifth of an inch in length by one one-hundredth in diameter; the female, one-twelfth of an inch in length by one seventy-fifth in diameter. They are circular in cross-section and appear as minute, thread-like bodies. The males die shortly after copulation. The females may live for weeks in the intestine or bore into the mucous membrane, where they deposit their numerous young, about fifteen hundred to each female.

Second. The embryos, from one-fortieth to one-tenth of an inch in length, migrate directly through the tissues into the striated muscles. They begin to reach the muscles in from seven to ten days after infection, and, in the muscle fibres develop into

Third. The encysted larvae. These may remain alive in the muscles for years, cases being reported for as long as thirty years. Lime-salt is deposited about the invader soon after the first week he has reached his natural home. These larvae need only to be taken into the stomach, where the capsule is destroyed, and they pass to the small intestines, there to develop within two days to the adult. The latter copulate, the male dying, and the female delivering the embryos in less than a week after the infection.

Source of Infection. Man obtains infection from eating pork, the pork from eating rats or infected pork, and the rats from eating pork-meat or one another; thus keeping up an endless chain of infection.

Duration. Trichinosis may last from a few days to several months, usually running its course in from three to eight weeks. Convalescence is slow and may require from two to five months. Some cases are recorded in which patients do not recover for years.

Symptoms. The symptoms depend entirely on the amount of infection received at one time or repeated infection from the same source. Some infections are no doubt entirely overlooked. The more severe, typical cases present three fairly defined periods: the gastro-intestinal, the muscular, and the secondary-edema.

On January 4th I was called to attend the family of Mr. Klebe, which consisted of Mr. Klebe, wife, sister, and little daughter, aged thirty-two, twenty-six, twenty-one, and five years, respectively, American born of German descent. They reported the following conditions:

The family had eaten Christmas-dinner together, all enjoying good health. On December 27th they became ill, slightly so, at first, with gastro-intestinal symptoms, were nauseated, had pains in the stomach, felt chilly, and three of them were suffering from a diarrhea. Some had vomited several times; all appeared anemic and had edema of the eye-lids. Upon examination, I found them to be suffering from pain over the region of the diaphragm, which was tender. There was a slight tympany, the tongue, mouth and throat were congested, and they complained of pains

in the back and thighs. The pulse rates ranged from 90 to 120, with temperatures from normal to 101 degrees.

My first impression was that they had been poisoned and I began a searching inquiry as to diet, canned meats, vegetables, fish, milk, cheese, etc., but nothing out of the ordinary seemed to have been eaten. Finally, I found they had been eating freely of fresh pork. This meat they had purchased December 15th. Part had been pickled in salt brine in a galvanized tub, and part had, about December 20th, been freely spiced with pepper, salt and garlic and made into summer sausage, stuffed into gut, and allowed to dry.

Here, we thought, we had the cause of the illness, probably lead or zinc-poisoning from the tub. I gave all liberal doses of magnesium sulphate with opiates to relieve the cramps and vomiting. The following morning, the patients were not improved as I anticipated, and, suspecting trichinosis, I obtained specimens of blood, urine, excreta, and the meat. These I sent to Dr. E. A. Burchard of Lodi for examination. The doctor reported in the afternoon that eosinophiles were present in large proportions in the blood, about thirty per cent; also the urea increased to four per cent in the urine, showing a rapid tissue-waste as in ptomain poisoning. Upon further search in the evening, the doctor reported the sausage full of trichinae-spirellae.

The Skin, Mucous-Membranes, and Lymphatics. All the patients appeared very anemic during the full course of the disease, the anemia remaining well into convalescence. Puffiness of the eyes was plainly noticeable on my first visit. This remained prominent for ten days, gradually subsiding. It appeared very similar to edema from over-doses of arsenic. There was a pale, bluish discoloration in this edema of the lids. The little girl during the first, second, and third weeks, had an eruption, red patches, similar to urticaria, on the back of her hands and over the body. These disappeared and reappeared at intervals during the three weeks. From the early stages of the disease in the second week, the skin was covered frequently with profuse perspiration, the more severe in those who were the more infected.

Secondary edema developed during the third week of the disease. Mrs. Klebe, who died on the twenty-ninth day, had edema of the hands and lower limbs with considerable swelling about the jaws. Miss Klebe developed edema of the limbs, jaws, and neck, presenting the appearance of the German's "disease of the big head"; this swelling was accompanied about the neck with an otitis-media, developing edema about the mastoid, which was lanced. The tympanum ruptured and there was a considerable discharge from the ear for a period of two weeks. The secondary edema remained for five weeks, gradually subsiding. The little daughter developed an edema during the third week, which extended from the feet to the axilla. The skin was dry and shiny, with deep indentations on pressure, which remained for some time after the pressure was removed. In the regions of the axilla and hips, the edema was

from one to two inches in depth, and lasted well into the tenth week of the disease, gradually subsiding.

Gastro-intestinal symptoms prevailed from the onset, ranging from nausea to severe vomiting. During the first days, tenderness was elicited over the diaphragm and abdomen, being most severe over the epigastrium. Mrs. Klebe was slightly constipated and needed catharsis during the course of the disease. Mr. Klebe, at intervals, suffered part of the time with diarrhea followed by constipation. Miss Klebe vomited frequently during the entire course of the disease and had watery movements, averaging from four to fifteen stools daily. The vomiting seemed partially due to nervousness. Though she suffered from a complication of the ear, her symptoms remained always most favorable. The little girl suffered from chronic constipation, and daily doses of calomel, salts, and cascara were necessary for the relief of this symptom.

The appetite remained good with all the patients, and they were allowed a liberal diet of milk, cream, puddings, rice, soft egg, whiskey, icecream, etc. Nourishment was given freely, with the exception of a few days in the case of the two who died, when, owing to the closure of the mouth, it became necessary to administer nutrient enemata; the jaws became locked, and the patients were unable to swallow the food offered them. Miss Klebe and the child, during their convalescence, had ravenous appetites.

Nervous Symptoms. Mrs. Klebe suffered from insomnia and pain, was much distressed and extremely nervous for days, wishing to be turned over every few minutes. She became quite delirious a few hours before death. Mr. Klebe pursued a very resigned course, and, outside of being turned frequently and asking occasionally for rest, sleep, and relief from pain, remained clear of mind up to within a few hours of death. Miss Klebe showed a very nervous condition, owing to the ear complication. She also vomited frequently. The child ate and slept continually, only asking to be turned sometimes. Medicines were not resorted to for relief of pain or to produce sleep at any time during her long illness.

Muscular Symptoms. The muscles of the diaphragm, abdomen and back were sore and stiff during the early period. Within three days, stiffness and cramping of the thighs and shoulder muscles developed, being more painful at the tendinous insertions, though not directly in the joints. Within another three days the muscles of the forearms, hands, lower limbs and feet were invaded, the lower limbs were semi-flexed, the arms and forearms flexed upon the chest, any attempt at movements of extension causing excruciating pain. The muscles of the jaw and pharynx were also affected; the patients who died becoming unable to get their teeth apart. After the fifth and sixth weeks, the other two gradually came back to extension of the muscles. This improvement came about slowly and, in Miss Klebe, was not complete for three weeks, and in the child, for five weeks.

Urinary Symptoms. The urine early in the disease became scanty, amounting during the stage of

profuse perspiration, to from as low as three to twenty ounces daily. Specimens, when fair quantities were being voided showed four per cent of urea, instead of one per cent. The urine remained nearly all the time, free from albumins or sugar, was of light specific gravity, and light in color. During convalescence in the eighth week, the specific gravity of the specimen I examined was 10-30.

Temperature and Pulse. Mrs. Klebe's temperature remained during the first and second weeks between 99 and 101 degrees, showing very little fluctuation during the twenty-four hours. The pulse beat 120 to 130 per minute. Three days before death, the temperature rose to 102 degrees to 104 degrees, the pulse 130 to 160, being weak and irregular.

Mr. Klebe's pulse and temperature during the first week, ranged similar to that in typhoid fever; morning temperature, 99 degrees, afternoon up to 103 degrees, pulse 80 to 100. The second and third weeks, the pulse remained quite stationary, 100 to 120; temperature 99 to 101. Three or four days before death, the temperature again rose to 103 degrees, pulse 130 to 140.

Miss Klebe's temperature for five weeks remained from 98 to 102 degrees, pulse rate 108 to 125, while, in the case of the child, the pulse remained almost stationary for six weeks at 120 to 140, temperature 98 to 100.

Clinical Diagnosis. Some authorities make a point of differentiating between typhoid and trichinosis. Though it is true that, with the exception of Mr. Klebe for a few days, the pulse and temperature did not appear at all like typhoid, while the anemia and edema of the eyelids have nothing in common with that disease, still this point does not seem to be of much importance.

As for chronic, muscular rheumatism, the steady, gradual, orderly appearance of the invasion is a distinct symptom of trichinosis, while in ptomain poisoning, we have a more rapid onset of all symptoms. Where it is possible to procure specimens of a portion of the infected part, the trichinae are easily found with the aid of the microscope.

The picture of acute, gastro-intestinal irritation accompanied by soreness and tenderness over the abdomen, with gradual development of pain in the thighs and shoulders, then in the forearms and lower limbs, with early prostration, early general anemia, puffy eyelids, with a rapid pulse and corresponding low temperature, once seen, is never to be forgotten, and can hardly be mistaken for that of any other disease. To be sure, many light cases have, no doubt, been entirely overlooked.

Pathology. We obtained specimens of the meat from the same pig in a neighbor's family. Though the meat was infected, none of the family suffered from the disease, the meat having been thoroughly cooked. Other specimens of meat from the same butchering, contained no trichinae.

Dr. E. A. Burchard of Lodi, also made microscopical examinations of the urine, feces, and blood during the progress of the disease. First, the urine showed no particular change with the exception of

lessened quantity and an increased percentage of urates, indicating toxemia.

The feces, the doctor examined several times for the adults and embryos, but was unable to find them; they must remain in the mucous lining of the intestines. A peculiarity of the fecal material under the glass was its constant motion, though sealed, which may have been caused by the glycerine taken by the patients.

The blood showed the most changes as a diagnostic feature. It showed secondary anemia all the time after the first few days with leucocytosis. Then the eosinophiles commenced to increase, so that by the end of the tenth or twelfth day, a different leucocyte count showed over thirty-five per cent. The eosinophiles should be about three per cent. In the two patients who died, they remained round and compact. In the two who lived, as soon as they showed signs of recovery, the eosinophiles began to break up and the granules became scattered all through the specimens. Increased quantities of blood plates also appeared at this time.

In the muscles, the embryos increased in numbers in the tendinous portions. They destroyed the striated muscles, cutting up the tissue. Within their body walls, granular masses were found, and in some of the specimens, these granular masses formed the beginning of capsulation about the trichinae. In a specimen, obtained from the deltoid of Mrs. Klebe, the estimated count was thirty-six thousand to the cubic inch. In a specimen from the forearm of Mrs. Klebe, by actual count, one hundred and sixty were found in one-twelfth of a cubic inch, so that we could estimate two hundred and seventy-six thousand per cubic inch. They could be seen for thirty-six hours alive and in motion, coiling and uncoiling. The pointed ends showed great elasticity, the diameters increasing and decreasing, and no doubt they are capable of moving through tissue, as do the leucocytes. At no time were the embryos found in the blood; they must travel directly through the tissue.

Prognosis. The prognosis seems better in children than in adults, and better in cases with severe diarrhea. It is good after the sixth week. When appetite, sleep and respiration remain good, the prognosis is favorable. Elevation of temperature and extreme dyspnea are bad signs. I found the choking, the dry throat, and the closure of the jaws the most distressing of all symptoms.

The mortality ranges from zero to one hundred per cent; this depending entirely on the amount of infection, and bodily resistance. Mr. Klebe undoubtedly infected himself day after day for a week, as he was continually nibbling at the summer sausage until I began the investigation.

Prevention. Prevention may be brought about by thorough cooking of all pork, or by government inspection of all pork butchered.

Treatment. One of our nurses partook of some of the fatal sausage, taking within twenty-four hours an emetic and cathartic. While she felt very uneasy and was in bed a few days, it is doubtful if she had symptoms of the disease. During the early

days of the disease, by recommendation of different authorities, calomel, glycerin, resorcin, thymol and iodine were all tried. Mr. Klebe, who had the latest infection, and who was the last to go to bed, was able to take the anthelmintics and retain them without much disturbance of the stomach and intestines for several days. Yet, we evidently obtained very little result from their use, and it is very doubtful if any of them can do much good. We soon resorted to stimulants and nourishing food, with hypnotics and analgesics to produce sleep and relieve pain.

The nursing was trying and tedious. The patients were given warm baths and alcohol rubs. They needed constant turning. Mrs. Klebe's position was changed every ten to thirty minutes during her last week, this being accomplished by slowly turning the body, head, shoulders, the body and feet alternately. As the patients were suffering pain during all motion for days, they were unable to help themselves and lay stiff and doubled up.

Convalescence was slow, sure, and gradual, once it had begun. At the present time Miss Klebe is doing the housework, and the little girl is playing about the yard. Outside of motion, they do not feel much ill effect of the disease.

CASE OF HYPERTROPHIC PYLORIC STENOSIS WITH AUTOPSY FINDINGS.*

By ALFRED BAKER SPALDING, M. D., San Francisco.

A primipera twenty-one years old, born in San Francisco, gave birth to an illegitimate male child on November 29th, 1908, at the Central Emergency Hospital. Mother and child were transferred the same day to the Obstetrical Department of the University of California Hospital. On account of the child being born the interne neglected to take the usual history of the mother. For the following two weeks the record of the mother was negative except for a marked odor to the lochia. She nursed the baby for nine days and then gradually weaned it as she intended to leave the baby with the Associated Charities for adoption.

The child weighed on admission 2K 760 gms. and was normal except for a supernumerary toe on the left foot. On the second day an active gonorrheal ophthalmia of the right eye developed, which persisted with a less active involvement of the left eye for three weeks. The extra toe was removed on the twelfth day without anesthesia. A persistent attack of snuffles followed the ophthalmia.

Whey was alternated on the ninth day with the breast feeding, and the food was gradually changed according to routine plan for such bottle babies so that on the twenty-first day the baby was taking twenty ounces of a mixture containing 20% of upper 16 milk, 5% of milk sugar, 0.5% of sodium chloride and 80% of water, which was divided into ten feedings of two ounces each. Gain in weight was satisfactory. On the twenty-first day the baby

* Read at the Thirty-ninth Annual Meeting of the State Society, San Jose, April, 1909.

weighed 3K 60 gms, a gain over birth weight of 300 gms. The baby would have been discharged had it not been for a slight irritation of the right eye.

From birth the child cried more than the usual baby and was considered by the nurses to be an ill-tempered, spitting baby. The stools varied in number and character. At times perfectly yellow normal stools were passed usually two or three daily. On other days constipated and undigested stools of various green colors were passed. Colon irrigations were of frequent resort. On the twenty-first day vomiting was first noted as a prominent symptom. The vomitus was sour and watery and contained curds and mucus. The vomiting occurred on some days only once or twice. At other times nearly every feeding would be vomited. Ordinary regurgitation would at times change to vomiting of a forcible character so that the bed would be soiled a foot from the baby's face. From the quantity and character of the vomited material it is probable that portions of several feedings were vomited at the same time. After feeding, the child would apparently be in pain and would turn on the right side with head back, arms up and legs extended curved, and slightly rigid. Gain in weight continued until the twenty-fourth day when the maximum weight of 3K 90 gms was attained. The food ration at this time consisted of ten three-ounce feedings of a modified milk containing fat 2%, sugar 6.5%, barley 0.5% and proteid 1%.

Examination revealed the fact that besides a general shotty adenitis the baby had a large spleen and markedly enlarged kidneys. These facts in association with the snuffles caused the digestive disturbances and the loss in weight to be attributed to a luetic taint, and the baby was placed on inunctions of mercury. On this point, however, Dr. Montgomery and other members of the skin department reported negative findings. Treatment consisted practically of daily lavage, colon irrigations and various changes in the food formulæ. As in addition to the pain, vomiting and rapid loss in weight it was noticed that the stomach appeared distended and was traversed from left to right by distinct peristaltic waves a diagnosis of pyloric spasm was made. Dr. Lartigau seeing the child advised operation, while Dr. Tait at the same time agreed with the writer that the child stood a good chance to recover without laparotomy. Attempt was made to nourish the child with milk from a foster mother but without avail, and vomiting continued from four to five times daily. The loss in weight during the ten days following was 440 gms. Dr. Lewitt saw the child on the 35th day and suggested using soda-bicarb. with the daily lavage. He considered the prognosis good in spite of the loss in weight. On the 37th day Dr. Sherman saw the child and said the child would die if not operated upon at once. After a delay of 24 hours and an added loss in weight operation was set for nine o'clock the next morning. Dr. Langley Porter saw the child that afternoon and suggested feeding small amounts of whey with tr. of belladonna and soda-bicarb. at hourly intervals. Of the following eleven feedings

seven were retained and four regurgitated. In the morning the child looked much improved and had gained 30 gms. By general consent operation was postponed for twenty-four hours. The belladonna was continued, one drop every hour, together with the stomach washings and alkaline whey diet. Sixty cc of normal salt solution was also given by hypodermoclysis. The nurses' report at the end of 24 hours was: Total food given, 260 cc; amount regurgitated, 40 cc; gain in weight, 190 gms.

Operation was indefinitely postponed and until the development of a terminal pneumonia it looked as if a gradual recovery would occur.

The baby continued to look better, vomiting was less frequent, the stools were better digested and gain in weight replaced the previous loss so that in three weeks the baby had regained a total of 480 gms of the original loss and again weighed 3 kilos. The blood and urine were negative and the stomach contents gave a total acidity of 42.

Unfortunately through an oversight a baby was admitted one night to the same room with this baby. The new baby, supposed to be suffering merely with malnutrition also happened to have a pneumonia. The rule of the department that new babies shall be isolated for twenty-four hours before being placed with other infants was violated and as a result of the general mix-up the baby with the supposed pyloric spasm developed a pneumonia and died. The condition found at autopsy was a surprise, for in place of a supposed spasmodic condition of the pylorus there was a very marked hypertrophic pyloric stenosis.

Clinically it was apparent that more or less food was passing into the intestine. No one who saw the case diagnosed a stenosis and the men who had had the most experience with cases of pyloric spasm and stenosis were the most positive that this case was one of simple spasm. One valuable suggestion of taking an X-ray picture of the stomach after feeding the child bismuth was neglected.

This case is reported simply to add to the already large number of cases of pyloric spasm and stenosis recently reported in San Francisco. The literature will be found to be well covered in the paper of Dr. Langley Porter in the March number of the California State Journal of Medicine for this year, vol. 8, No. 3.

The following is a report by Dr. A. W. Lee of the autopsy findings. The autopsy was made about one-half hour after death:

Body about 52 cm. in length, and extremely emaciated, still warm. No rigor mortis, no post mortem lividity. Pupils slightly dilated, equally. Skin clear. Palpable lymphatic glands enlarged. Abdomen moderately distended. Subcutaneous fat practically absent. Muscles poorly developed, pale; recti separated 1 cm.

Pleuræ clear on both sides. Hypostatic congestion upper lobe of right lung, and throughout the whole of the left, posteriorly. Thymus rather small. Pericardium normal save for slight turgescence of vessels. Heart normal.

Omental fat very much reduced in quantity.

Liver small, otherwise normal. Spleen slightly enlarged, otherwise normal. Gastro-pyloric portion of small-bowel enlarged into a firm, oval mass, about 2 cm. in length, and of slightly less diameter. Urogenital organs normal.

The stomach was slightly enlarged, its mucosa showed, however, aside from an inconsiderable thickening, no change from the normal. The following procedure was carried out:

The gastric end of the esophagus was tied off as well as the anal end of the rectum, and Zenker's fluid injected into the stomach under considerable pressure. The stomach immediately filled out, and, by constricting the duodenum a few cm. beyond the pylorus, the fluid could be seen to collect very slowly in the bowel. However, this transpired so tediously, due to the narrowing of the pyloric canal, that injection through the stomach was discontinued, and carried out by way of the ileum.

Shortly afterwards an infant came to autopsy whose gastro-intestinal tract was normal, and its age was approximately the same as that of the baby described above. Here again the gastro-intestinal tract was distended with an injection of Zenker's fluid, and, after fixation, the gastro-duodenal portion of the small-bowel was excised, mounted in celloidin, cut serially, and stained in hemotox. and eosin. These sections were used as controls in examining sections, cut serially and stained in hemotox. and eosin, from a corresponding region of the gastro-intestinal tract of the infant first alluded to.

shows a cross-section at about its middle. The marked difference in size is seen at a glance when comparing *a* and *a* of Figs. 1 and 2. By comparing both cross-sections, the mucosa of the preparation from the first infant is found to be considerably thicker than that from the second. The pattern of the mucosa-foldings is very much less intricate than seen in the normal specimen. The remaining division of the wall of the bowel is also thicker than in the control preparation. These differences are more clearly shown in low-power magnifications of these sections, as illustrated in Figs. 3 and 4. The tunica serosa in both preparations shows no divergence from the norm, *a, a*. But the longitudinal muscle-bundles are greatly in excess in the case of the first infant, Fig. 3, *c*, but individually considered the muscle fibres wherever found in the wall of the bowel are free from any pathologic change. The blood-vessels dispersed among the longitudinal muscle-bundles are fewer in number in the sections from the first infant, Fig. 3, *b*, although they are quite normal in histology. The circular muscle-strands are also more abundant in the first infant's gastro-duodenal portion of the small-bowel, Fig. 3, *d*, than those appearing in the control, Fig. 4, *d*. The next most striking variation between the abnormal and normal specimens is the almost total absence of the areolar connective tissue in the submucosa, this area being occupied by the distinctly hypertrophied muscularis mucosae, Fig. 3, *e* and *f*. In Fig. 4, *e* shows the normal areolar tissue in the

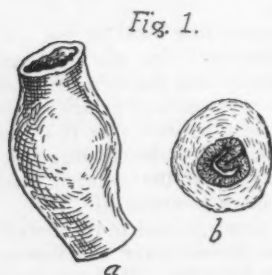


Fig. 1.



Fig. 2.

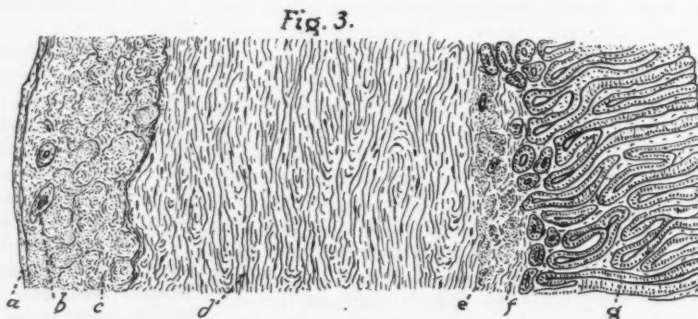


Fig. 3.

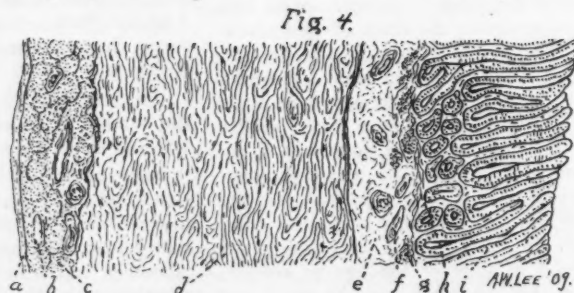


Fig. 4.

Referring to Fig. No. 1, *a*, the gastro-duodenal region of the small bowel from the first infant is seen enlarged about $\frac{1}{4}$. In the same figure *b* represents a cross-section of this structure at its middle. Fig No. 2. *a* pictures the gastro-duodenal region from the second infant, likewise enlarged $\frac{1}{4}$, and *b*

submucosa, while *g* and *h* represent the longitudinal and circular fibres of the muscularis muscosae. In Fig. 3, *g*, and in Fig. 4, *i* designate the mucosa in both preparations. Aside from their greater length, the glands of the mucosa from the abnormal specimen do not differ markedly from those in the normal one.

Conclusions: The stenosis in this case seems to have arisen from an hypertrophy of every muscular integer of the pyloric division of the bowel, and probably dates back to a very early period of the child's intra-uterine life.

Discussion.

Dr. R. Langley Porter, San Francisco: The important point to be made is whether these children shall or shall not be operated upon. In consultation, in practice and by the courtesy of friends I have seen seven of these cases within the last two or three years. Four have been operated upon and all are alive and well. Gastro-enterostomies were done in every case and the children are beautiful, strong, well developed infants. The other three died. Another case I know of, treated medically by Doctor Lewitt, is well now after five months. The point to be made is between true stenosis and stenosis of spasm. Much of the symptomatology is due to the spasm of the hypertrophied pylorus. This specimen allowed a sufficient amount of milk to pass through the pylorus to cause good stools. Perhaps Doctor Spalding's case died from starvation more than from pneumonia. I saw this case and I did not advise operation because I thought enough food was passing into the intestines to warrant temporizing. I believe the right procedure is to do gastro-enterostomy immediately. In each of my cases I waited ten days, attempting to feed with fat free milk and the use of lavage. These patients seemed to improve for a time under that treatment and there was some relaxation of the spasm. To sum up, there is a condition appearing at about the third or fourth week in which vomiting, projectile in character, and visible peristalsis are the dominant features. The children are most of them breast fed. In most cases there is a marked contrast between the upper and lower abdomen, the lower abdomen being narrow and shrunken. In neither of these cases was the abdomen definitely shrunken and in both the intestine was functioning. Besides, there are the characteristics of the stool which were absent in both of these cases.

Doctor J. H. Barbat, San Francisco: With regard to waiting too long in these cases, I found, when I was in the East, that a number of pyloric stenosis cases had been operated upon and that most of them died, and were not reported. I found that the majority of cases which had died were children who had been brought to the surgeon too late because the medical man had waited until the child was in extremis. The children who are operated upon early recover, but when the physician delays they are so reduced that operation will kill them. If they are operated upon early enough, as my friend Arbuthnot Lane said, they take the anesthetic like milk and the operation as a joke. I operated upon one child in the morning, and in the afternoon the baby took the breast and never had any trouble. While the operation is beset with some difficulties on account of the small size of the intestines, if a little delicacy is used no trouble will be had.

Doctor A. J. Lartigau, San Francisco: Dr. Spalding has brought forward a subject which is well worth your very serious consideration. It is bound to attract more and more attention and as infants are more carefully studied, the number of reports of these cases will increase. That has been our experience in San Francisco. Though I have seen a number of cases of my own and some belonging to others, and have successfully operated on one such case, I am not prepared to take the extreme view voiced by Dr. Porter, nor am I, on the other hand, willing to take the position of others who believe that an operation is practically never indicated. While the diagnosis of the condition usually presents no difficulties, for the symptoms are clear

in most of the cases, nevertheless it will require fine judgment to discriminate between those cases in which operative interference is justifiable and those in which it is not; in other words to distinguish between the so-called spasmodic form of stenosis and the true hyperplastic type. Personally it seems to me that the middle course is the safer. In any case the therapeutic attitude would largely be determined by the individual peculiarities of the case with which one is dealing. I know of no way in which definitely to determine, especially early in the disease, that you are dealing with the spasmodic form or the hyperplastic form, except by watching the case. If you find that the case does not do well by the usual medical treatment, then without waiting too long until the child is too emaciated and weak, surgical interference is probably justified in most instances.

CHYLURIA WITH A VESICAL SINUS.*

By SAXTON POPE, M. D., Watsonville.

I don't know who invented chyluria. My early reading of the Bible leaves no memory of any reference to the subject; not even in the Book of Job. Possibly the Eber's papyrus mentions it but I am not good at Egyptian hieroglyphics.

Whether Hippocrates and Galen dwelt upon the subject I can not tell you. But I have read that Gubler, in 1858, first suggested that chylous urine was due to the passage of chyle directly into the urinary tract and that Wucherer first detected an unknown worm in the urine of a woman at the Misericordia Hospital at Bahia in 1866.

In college and hospital, of course, we heard of this condition but it remained for me to discover it for myself when a Japanese boy walked into my office with a bottle of this characteristic urine in his pocket. One difference between an expert diagnostician and a country doctor lies in the fact that the former thinks first of all the improbable diagnosis and that the latter thinks of the most obvious. So, being a country doctor, when this bottle of milky urine was presented to me, I immediately thought: here is another neurasthenic Jap with a lot of phosphates in his urine; and he is scared to death; he has what they call "shinke" or hypochondriacal introspection.

Here I am minded to quote the great surgeon, Pirogoff: "There are in everyone's practice, moments in which his vision is holden, so that an experienced man can not see what is nevertheless clear, at least I have noticed this in my own case. An overweening confidence and preconceived opinion, rarely a weariness, are the causes of these astonishing mistakes."

I shook the bottle, gazed through it like an ancient urine caster,—lo and behold!—a light broke in upon my weak brain; in my second thought I recognized the specimen as one of chyluria. The urine looked like city milk with a deposit of blanch-mange in the bottom. It lacked the flocculent eddies that occur in phosphatic urine when shaken.

A hasty examination proved that the fluid was macroscopically homogeneous, creamy white, and

* Read at the Thirty-ninth Annual Meeting of the State Society, San Jose, April, 1909.

contained shreds of fibrin and a gelatinous coagulum in the bottom of the vessel. The filtrate did not clear upon heating and the addition of acids, but contained an abundance of albumin, nor did an equal quantity of ether clear the solution. The unfiltered liquid microscopically was full of small granules and cells resembling large lymphocytes. No casts, no ova and no parasites were visible.

The Japanese said his name was S. Miamoto, that he was 28 years of age, had been 4 years in this country, was a resident of Monterey and previously had lived 4 years in Hawaii.

The first milky urine appeared in the winter five years ago and had recurred every succeeding winter, lasting about two weeks every time. It was usually only the morning urine that was white and not always clotted. He had never been seriously sick except in infancy when he had what probably was spinal tuberculosis with a psoas abscess. Two years ago he had Rimbyo (gonorrhea) but never had Kasa (syphilis) or Kaki (beri-beri) or any swelling of the legs (Suiki). I made a physical examination which gave no evidence of disease in his heart, lungs, cerebro-spinal axis or abdominal organs.

His upper lumbar vertebra were rigid and slightly kyphotic. There was a slight compensatory lordosis in the lower dorsal. There was an old scar in the left groin which he said marked the site of his abscess in infancy. Save this there was no trouble referable to the original spinal lesion. His lymphatics all seemed normal. There was no edema; no ascites. His genitalia were small, which is characteristic of the Japanese, but showed no abnormality. He said that his sexual function was perfect. Rectal palpation demonstrated the prostate normal in size and consistency, but above it and between the seminal vesicles, leading off to the left side, there was a diffuse induration suggestive of an organized inflammatory exudate. This was not tender. The seminal vesicles seemed normal. I did not strip them nor express the prostatic secretion. No enlarged lymph nodes were to be palpated in the pelvis. His urine passed in the office was clear and free from albumen and glucose. Microscopically it contained a little pus and a few erythrocytes. A blood count proved normal and there were no filariæ present at 11 a. m. or 8 p. m.

The following day he reported for a cystoscopic examination and presented me with another sample of chylous urine. He said that the gelatinous coagulum came out near the last of micturition and gave some pain. I introduced a Bransford-Lewis direct view air cystoscope into the bladder with no difficulty, using distilled water as a dilator in place of air. His bladder was absolutely normal. The ureters were easily found and were seen emitting rhythmical jets of clear urine. I did not catheterize them. The trigonum vesicæ from the level of the ureters down became more corrugated and vascular as it approached the urethra. Withdrawing the cystoscope to the extreme lower angle of the trigon, there was plainly visible the orifice of a sinus whose diameter was about that of a ureteral catheter. The

mucosa surrounding this aperture was edematous and covered with a fibrinous exudate. There was no bleeding so I had ample time to allow a creamy white discharge to issue from this sinus and slowly collect in the end of my cystoscope, until it threw the light into a dense fog and obscured the field of vision. I then removed the cap of the tube and permitted the turbid water to flow into a test tube. A later examination of this fluid proved it to be practically identical with the chylous urine.

As a prophylactic measure I gave the patient some hexamethylene tetramine and asked him to return in two days. This he did, saying that his urine was clear. He was requested to come again in a week for further study but he failed to materialize and I have not been able to find him.

Dr. C. M. Cooper of San Francisco made an examination of the urine, but the analysis was incomplete owing to a lack of material. His informal report is as follows: "The urine I allowed to stand, separated into three layers. An upper cream scum of about one-tenth of the depth of the fluid. This scum under the microscope showed globules ranging from about the size of a megaloblast to that of a so-called hemoconium granules. Shaken up with twice its volume of ether it lost its milky color, the resultant fluid being of a turbid grayish appearance. The middle layer consisted of fluid that was turbid like pale turbid urine and was about seven-tenths by volume of the whole. The fluid contained considerable albumin. The third layer consisted of a curd-like looking deposit, milk white in color, and shaken up with ether it became somewhat grayish while also losing its pure milk color. Microscopically many of the same kind of globules were present, but also granular material, some crystals and some granular cells."

This seems unmistakably a case of chyluria. That no filariæ were found in the blood or urine upon two examinations certainly does not exclude a parasitic origin. Filariasis is not uncommon in Hawaii. The intermissions and the nocturnal occurrence of the chyle are interesting but not unique. In thirty cases collected in literature the intermittent character was present three times. A pelvic or inguinal abscess preceded chyluria twice in this number. The nocturnal filtration corresponds to the case lately reported by Magnus Levy in which chyle appeared at night or only when the patient lay down, issuing in a milky stream from the right ureter. Doubtless both cases permit of a mechanical explanation.

The possibility that an old tuberculous sinus extending from his lumbar vertebrae to the triangle of Scarpa, might in its wanderings have opened some portion of the chyle apparatus, must be considered. The induration posterior to the bladder and the sinus in the trigonum invite a tentative hypothesis that chyle gravitated from a tuberculous erosion of the receptaculum chyli, through the old sinus, strayed down the psoas muscle, followed the ureter to the lowest possible point of retro-peritoneal dissection and inadvertently entered the bladder.

All of which occurred October 5th and 6th in the year of our Lord 1908.

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"THERAPEUTICS."*

By JOHN L. AVEY, M. D., Redlands.

By therapeutics I refer to the therapeutic platform of the regular medical profession, or the use of anything by which we can relieve suffering, or aid any or all of the vital forces of the body to approach nearer the normal; a platform certainly broad enough for any one who has the good of humanity at heart.

The subject of therapeutics therefore is the broadest, the most difficult to master, and the most important of all branches of medical knowledge; for it is the ultimate aim toward which all other lines of medical knowledge converge.

It has been stated, "that in practical therapeutics, whether justly or unjustly, we as a profession stand condemned before the great bar of public opinion."

While I am not willing to fully endorse this statement, yet every physician knows, that with a very large part of the public there is much lack of confidence in much of the applied therapeutics of the regular profession.

This fact is apparent from the flourishing condition of the various ics, ites, isms and pathies, which succeed in evading or gaining the sanction of the law.

Now it is some of the causes which have been instrumental in bringing about this state of affairs that I wish you to consider for a few minutes.

For a number of years it has been common for a considerable number of men in our profession, after years of administering medicine, to publicly express themselves as lacking confidence in the potency of drugs in general, and at the same time to continue administering drugs for the very purposes for which they expressed themselves as believing they were practically useless.

We all know that there has been a growing tendency among men high in the profession along this line and statements of this character appearing in our journals have been copied by the public press.

The result of these expressions, especially those coming from men of known ability, and national reputation, have had much to do with the attitude of the public in this matter.

Most of the results of these nihilistic expressions, so far as my observation goes, we can see along two lines.

First:—They form one more basis for the play of the morbid imagination of the anti-vivisectionists, who say why all this suffering and destruction of life among the lower animals for determining the effects of and the standardizing of medicines when they are of so little value.

Second:—These nihilistic expressions lead the public away from the regular profession into the hands of any ic, ite, ism or pathy, that will promise them relief without the administration of "*strong medicine*." This is an age of marvelous advancement in many lines especially so in the field of medicine, and probably we are on the eve of much greater and more wonderful therapeutic achievements, not however along the lines of the faddists of to-day who take some one truth brought to light as the result of ages of work and thought by the medical profession, or one which in the past has not received as prominent a place in our therapeutics as its power for good would warrant. Not by forcing one such truth or method to cover the greater part of the realm of healing but by recognizing their limitations as well as their possibilities and by giving to each of them its rational place in our therapeutics.

Would Eddyism, Dowieism, or any of the various other faith cure and mind cure fads of to-day be so much in evidence had the medical profession in the past given to suggestion the consideration to which it is entitled?

The Royal Society of Medicine condemned the work of Mesmer in the following language: "Animal magnetism is nothing but the art of making sensitive people fall into convulsions and from a curative point of view is useless and dangerous."

This fiat of the powers has largely dominated the profession for more than two hundred years and few were so bold as to openly make use of suggestion to any great extent after it was officially termed charlatanism.

Again four or five hundred years before Christ, Herodicus reduced bodily exercises and manipulation to a system and made it a branch of medical

* Read before the Thirtieth Annual Meeting of the State Society, San Jose, April, 1909.

science; later we find Diocles, Herophilus, Galen and others giving rules for their use. We can follow them down through medical literature, and in 1813 we find them given fresh impetus and put on a firmer foundation by Ling under whose directions was organized the Royal Gymnastic Institute in Stockholm, Sweden, under the supervision and at the expense of the Swedish government. In this institution was taught along with anatomy, physiology, hygiene and so forth, the principles and practice of movement treatment, including active and passive movements, resistive and duplex movements, striking, kneading, percussion, vibration, slapping and so forth and so forth.

Had this line of therapeutics been given by the rank and file of the profession, the place to which its therapeutic possibilities entitled it, would a special school have been organized for the purpose of supplying it to the public?

Many fads have come and gone, many are still flourishing, and all have wrought cures which should have been brought about by the regular profession, also each one of them, because of its limitations, has left in its wake a story of useless suffering and untimely death that might have been prevented by the rational use of well known therapeutic measures.

Now I would not have us believe, with Mrs. Eddy, that San Francisco in her great calamity simply suffered from the vapid fury of mortal mind, nor with other healers that the various manipulations of the human body cover the sum total of therapeutic measures, but is there not in every therapeutic fad before the public to-day some element of truth, probably given to the world by the regular profession, in whose hands it should have been a blessing to mankind, but which has been denied its legitimate place in our therapeutics, been turned over into the hands of charlatans, been forced in the hotbed of ignorance and superstition, being loaded with a mass of error, and become more of a curse than a blessing?

The variations of the human body from the normal are as varied as the imagination of man and require a system of therapeutics as broad as the platform with which we started.

Now the use of drugs is only one of the many means essential to the proper management of a diseased organism, and in many instances has no doubt been used to the exclusion of better methods of accomplishing the desired result, but this is no excuse for the sweeping declaration of lack of confidence in drug therapy in general.

Destructive criticism may be essential to advancement and the careful, thoughtful and painstaking investigation essential to placing and holding each therapeutic measure in its proper place will probably never be completed.

But should not the public know that an adequate dose of apomorphin will still produce emesis just as it has in the past? That it will produce emesis in spite of the manipulations of the osteopath, in spite of the prayers of the faith healer, in spite of the suggestion of the psycho-therapist, even the laying on of hands will not keep it down. That in the

administration of drugs there is a dynamic force, a power capable of producing well known and specific effects upon the human body, and in a large number of conditions is still our most potent means of modifying vital processes, relieving suffering and aiding the restoration of normal conditions.

SANITARY SUPERVISION OF COMMUNICABLE DISEASES BY THE DEPARTMENT OF PUBLIC HEALTH.

By R. G. BRODRICK, M. D., San Francisco.

The control of infectious diseases by sanitary regulations is one of the notable achievements of modern times. It is stated that the death rate during the seventeenth and eighteenth centuries ranged between 50 and 80 per 1000. To-day in such cities as New York, London and Berlin the average is 17 to 19 per 1000; in San Francisco it has been reduced to 13 per 1000. This decrease in mortality is due to the protection from infectious diseases now given to children in the first five years of their lives.

The average duration of life has coincidentally increased. According to Dr. M. Biggs, of the New York City Health Department, the expectation of life in that city in 1866 was a little more than 25 years, while in 1903 it had almost doubled, being about 42 years.

The Department of Public Health exercises sanitary supervision over cholera, yellow fever, small-pox, varicella, pulmonary tuberculosis, diphtheria, membranous croup, scarlet fever, typhus fever, measles, pneumonia, and every other disease publicly declared to be dangerous to health, by virtue of Ordinance 1034. Typhoid fever, bubonic plague, cerebro-spinal meningitis, glanders, anthrax, leprosy, beri beri, erysipelas, trachoma, pertussis and mumps have been publicly declared to be reportable diseases. Communicable diseases are reported by physicians to the Health Office through one of the following channels:

1. By mail—printed postal cards giving lists of reportable diseases are furnished upon application.
2. By telephone—an operator is maintained day and night at the Health Office.
3. By certificate of death—this is not accepted as complying with the law regulating the reporting of communicable diseases unless death ensued within 24 hours after the physician first saw the case.

Other sources of information are:

1. Hospitals.
2. Institutions having charge of children, such as schools and orphan asylums.
3. Charitable organizations, for example, the Associated Charities and more especially the Association for the Study and Prevention of Tuberculosis.
4. By notification from the medical school inspectors. Cases occasionally first come to our attention when application is made to the Health Office that permission be granted a child to return to school, as is required by Section 17, of Ordinance 1034.

An alphabetical "name" index is kept of all physicians who fail to report their contagious diseases. Upon the first offense a letter is sent to the physician giving the patient's name and address and the nature of the disease informing him that it is a reportable disease and requesting his co-operation in the future. A second offense calls forth a letter citing the physician to appear at the Health Office and show cause why action should not be taken against him. This is usually sufficient. The department has been loath to prosecute physicians who fail to report contagious diseases believing that such failure is due to thoughtlessness; but that more good may be accomplished by first impressing upon them the importance of strictly observing the law. In a few instances where neglect to report contagious diseases has led to serious consequences, the offending physicians have been arrested.

Upon receiving information of the existence of a contagious disease from whatever source, search is first made in the Index and if it has not been previously reported a "record" card is made on which all essential facts, name, age, address, date and source of report are entered and to which are later added every recommendation and official action of the department, such as reports of sanitary inspectors, names of contacts, findings of bacteriologist, report of fumigator, etc.

The "record" cards are differently colored in each disease, e. g., yellow for variola; red for scarlet fever; blue for diphtheria, and are filed for four years, when they are destroyed.

A duplicate of the "record" card is furnished the Sanitary Inspector, who is a physician, and he thereupon visits the premises where he verifies the information furnished him, obtains list of contacts, location of school attended by children in family, address of depot supplying milk. Information is given regarding the nature of the disease and precautions to be taken to prevent its spread, a printed form covering these points being left on the premises if considered necessary. The Sanitary Inspector does not see the patient unless specially requested to do so. In case of scarlet fever, diphtheria and small-pox, a placard with the name of the disease is placed on the premises which notifies the public to keep out. The principal is furnished with the names of contacts by the Sanitary Inspector and notified to exclude them from attendance in public, private or parochial schools until a permit to return is obtained from the Health Office. Notice is further sent to the milk dealer informing him of the existence of a contagious disease and ordering him to pour milk into a container furnished by the family, or should bottles be left, not to remove same until after fumigation.

The Sanitary Inspector later calls to ascertain if any contacts have sickened, and unless previously notified, the Sanitary Clerk telephones to the attending physician one or two days before fumigation, to be sure that the patient has recovered. If so, the Sanitary Inspector visits the premises, determines the number of infected rooms with cubic air space. This information is sent to the disinfecter, who on

the morning following proceeds with gummed strips, formalin lamps or sulphur pots to fumigate the rooms, the amount of material used being included in his report. To test the efficacy of the work a Petri dish containing a non-pathogenic organism is uncovered in the infected space and the doors are sealed on the outside. In six or eight hours a Sanitary Inspector calls, breaks the door-seal, takes charge of the Petri dish, which is sent to the bacteriologist for examination. In case of positive findings fumigation is repeated.

Time will not permit considering more than a few of the important communicable diseases, and I will therefore commence with

Diphtheria.—During the two years following the disaster there were 859 cases reported and 123 deaths, a mortality of 14.32%. For the year ending April 30, 1909, 599 cases were reported, of which 54 died, a mortality of only 9%. This decrease of over 37% in death rate is due in part to the greater number of cases reported, in part to the distribution of free antitoxin. A prompt report of this disease must be made as soon as discovered. This may be done on the printed slip accompanying the sterile swabs to be obtained at various drug stores throughout the city, and after inoculation sent to the Health Office at any hour. Examinations of the cultures are made at 9 a. m. and at 6 p. m., and the results are immediately telephoned to the attending physicians, written reports following.

Free antitoxin is furnished upon certification from the attending physician that the family is unable to pay for it.

When diphtheria bacilli are found in the culture a sanitary inspector visits the premises and sees that the patient is properly isolated. No work of any kind, such as tailoring, laundering, or manufacture of food stuffs is permitted in the rooms occupied by the family, and a case occurring in the rear of a store must be removed to a hospital or the store will be closed and placarded. Isolation is maintained until a culture has shown that the diphtheria bacilli are no longer present, but under no circumstances is isolation discontinued until ten days after the beginning of the illness.

Cultures should be sent to the Health Office at least once each week, even oftener at the later period of the disease, so that the hardship of isolation and of school exclusion might be reduced to the minimum.

Should the diphtheria bacillus persist in a patient's throat for three weeks, the organism is isolated and two guinea-pigs are inoculated with a forty-eight-hour bullion culture. If the pigs live one week, isolation is discontinued. If they die, the test is repeated in two weeks.

Typhoid Fever.—An epidemic of typhoid fever at the present time is inexcusable and is the nemesis visited upon a community because of carelessness in the conservation of the purity of its water, milk or food supply. Flies are probably the carriers of the disease in isolated cases, whereas water or milk are the more probable vehicles in epidemics.

During the eight months following the disaster

of April, 1906, there occurred, chiefly among the refugees living in camps, 1215 cases of typhoid fever with 184 deaths. During 1907 there were 429 cases reported and 120 deaths. That the infection was fly-borne in the majority of these cases was verified by a series of experiments made with agar plates exposed on the windward side of infected localities. After allowing several flies to touch the plate, the dish was sealed and returned to the laboratory. After 24 hours of incubation many of the plates showed bacilli resembling coli communis. Further segregation showed the culture to ferment a large amount of gas and to grow on Parietti and Ellsner's media.

The adoption of an ordinance requiring all markets, fruit and vegetable stores, restaurants and bakeries to be screened with fine wire mesh, the passage of the law requiring that manure be kept in metal-lined, covered bins built within the confines of stables, and the enforcement of anti-plague measures have been important factors in producing the comparatively low typhoid rate in this city, but 16 deaths having so far occurred during the present year.

It is earnestly hoped that thickly populated districts, such as Telegraph Hill, Glen Park and Oceanside will be sewered within the near future so that an ordinance prohibiting the insanitary and overflowing vault closet may be enacted.

Samples are collected twice a month from the distributing reservoirs of the Spring Valley Water Company, and have invariably been free from contamination. The spring and well waters of certain dairies on the peninsula have been found to contain the bacillus coli communis; and the owners were notified, under penalty of forfeiture of the permit to sell milk, to discontinue their use. The Chief Dairy Inspector in all cases endeavors to locate the source of contamination and gives the necessary orders to remove it.

Outfits, consisting of one-half dram Shell vial and lancet, are now distributed to various drug stores where they may be obtained by physicians. A 1 to 50 dilution of the serum is used in making the test, and if paralysis and clumping do not occur in one hour, a negative result is reported.

Upon notification of a typhoid case, a sanitary inspector visits the premises, ascertains duration of illness, source of water and of milk supply, if there were a history of infection after eating shell-fish, uncooked vegetables or fresh fruit. He investigates if an open sewer, vault toilet, open manure bin or undrained stable exists in the neighborhood. He inquires from the attending physician if the diagnosis has been verified by a Widal examination and if the urine shows Diazo reaction.

No placard is placed on the premises, but the sanitary inspector sees that the patient is isolated in a room properly screened and that the excreta, bed clothing and other articles coming in contact with the patient are immediately and thoroughly disinfected. The danger of infection from typhoid carriers, especially when engaged in the preparation of food or in dairy work, should be borne in mind.

This occurs in about 4% of cases, the bacillus typhosus apparently being harbored in the bile and intermittently excreted with the feces.

Public safety requires that persons recovering from typhoid fever be kept under bacteriologic control until they are no longer a menace to health.

Variola.—During the past year occurred 171 cases of smallpox with one death, whereas the year previous there were 249 cases with four deaths. This decrease, due to the strict enforcement of the compulsory vaccination law among school children, proves the same to be not only justifiable but a beneficial exercise of police power over the public health.

During the month of April, 1908, following an outbreak of smallpox in the Mission, Dr. A. A. O'Neill, Chief Surgeon of the Isolation Hospital, was detailed to examine the children attending schools in that district and found 66% had no vaccination, although every child had presented a vaccination certificate duly signed by a physician.

Last October, Dr. Bricca, Medical Inspector of Schools, found 11 cases of variola in a class-room of the Garfield Primary School, which is situated in the Latin quarter, eight of whom had presented certificates of vaccination. Before we were able to stamp out this endemic, 29 cases had occurred among the school children, although the disease did not attack the Italian parents, all of whom, thanks to the vigilance of the immigration authorities, showed good vaccination scars.

At the request of the Health Department, the Board of Education has adopted a new form of vaccination certificate, which requires the physician to certify that he examined the child 14 days after vaccination and that the same is successful.

When a case of variola or of varicella is reported to the Health Office, its diagnostician, the Chief Surgeon of the Isolation Hospital, is at once notified by telephone, and he investigates the case. Upon establishing the diagnosis as smallpox, the patient is removed to the Smallpox Department, which is now the equal of any place of its kind and where the patient is given the same attendance as might be obtained in any first-class institution. Removal to the Smallpox Hospital is made without regard to the stage of the disease. Every effort is made by the diagnostician to locate the source of infection. He visits each room in the house and obtains the names, places of residence and business addresses of all contacts and forwards the same to the sanitary inspector, who thereupon vaccinates them and subsequently visits them every five days for fifteen days. The householders in the same block are advised of the necessity of vaccination. When cases of doubtful diagnosis occur especially in rooming houses or hotels, large stores or factories, the public interest demands that the "suspect" be removed to the Smallpox Hospital, where under the present arrangement he is completely isolated from those having the disease until such time as a positive diagnosis is made.

It is advised that physicians when in doubt report the case as "suspicious," for among the diseases

which have been reported as smallpox are measles, scarletina, varicella, syphilitic erythema, multiformabullosa, drug eruptions, urticaria, and the various forms of acne.

The smallpox dead are buried direct from the morgue in sealed zinc-lined coffins.

Tuberculosis.—So far the fight against tuberculosis has been largely conducted by private charity, the municipality being loath to assume the responsibility. The misery, poverty and crime caused by nearly 2000 deaths from tuberculosis in this city since the fire cannot be over-estimated. Strong efforts are being made in other cities to control this disease; a reduction of 70% in the death rate in the Boroughs of Manhattan and Bronx having been made in 20 years, and it is time that San Francisco, whose annual average death rate from tuberculosis is the greatest of the ten largest American cities, act in defense of the lives of its citizens.

All cases of pulmonary tuberculosis are required to be registered at the Health Office, which may be done by postal card or by forwarding a specimen of sputum for examination when such shows tubercle bacilli.

Wooden asphalt-lined boxes with blank forms pasted on covers may be obtained without charge at any of the drug stores now used as stations. A report of the examination is telephoned to the attending physician.

The information obtained is for record only, and in no instance are visits made by sanitary inspectors unless requested by the visiting physician. Hospitals, sanatoria and other institutions are required, when reporting, to give the previous address of the patient.

A certain number of deaths are reported to the Mortuary Bureau which were not registered during life, but on the whole the results have been satisfactory, 1299 cases having been reported for the year ending April 30th, 1909, as compared with 739 during the previous year.

After removal or death the rooms are fumigated. If renovation is necessary, the owner is notified, and in case of non-compliance, the premises are declared a nuisance by the Board of Health and vacated until placed in sanitary condition.

An ordinance following the lines of the proposed statute recently vetoed by the Governor clearly defining the powers of the Board of Health is now being framed. Indigents requiring hospital care are sent to the Tubercular Wards of the City and County Hospital, there being accommodations for 118 males and for 13 females. Every effort is made as far as possible to give these patients the benefits of fresh air and abundance of food, and a special interne is to be assigned as soon as one can be obtained who will supervise the handling of tubercular cases. While most of the cases are incurable, many have been benefited and upon leaving the hospital are referred to the Anti-Tuberculosis Society.

To perform the work properly a staff of medical inspectors and visiting nurses is essential. During the past few months the Society for the Study and Prevention of Tuberculosis appointed three nurses,

whose efforts have been of the greatest value in relieving the sick poor as well as preventing spread of the disease. This work should properly be done by the Health Department, whose nurses should visit all indigent cases, report those having no physician to a medical inspector, who should follow up these cases as well as those discharged from public institutions. A law should be enacted permitting forcible removal of a tubercular person, when necessary, such as exists in New York and Massachusetts.

Before closing I must briefly allude to the results obtained through the medical inspection of 19 schools.

During the past eight months 805 cases of infectious diseases have been found in the class-rooms or at home. These included 398 cases of measles, 130 cases of mumps, 56 cases of chicken-pox, 46 cases of whooping-cough, 32 cases of scarlet-fever, 24 cases of diphtheria, 31 cases of smallpox, and 20 cases of trachoma. The parents were required to have these children treated by the family physician or charitable organizations. Medical inspection has prevented epidemics occurring among school children.

Discussion:

Doctor Wm. Ophuls: There is really very little to add to Doctor Broderick's paper. The object of the paper of course on the face of it is to obtain the co-operation of the medical fraternity in the efforts of the Board of Health in stamping out infectious diseases in this city. It is known to all of you that the best laws in this regard can avail for nothing if they do not receive hearty and constant support from the medical profession. I have not myself been connected with the efforts in relation to public health long enough to have forgotten why it is that the average practitioner does not take quite the interest he might in questions of public health. It is only natural that in the press of other business and in the necessity of attending the sick immediately and promptly official communications are forgotten and it is only when one becomes interested in work of this kind that one realizes the enormous importance of such notifications. This is what I wish to bring to your attention. It is possible to achieve what is best in this way only with the co-operation of the profession, and this co-operation must be friendly and it must be given with the realization of the importance of the object aimed at. So far as other matters are concerned I wish to call attention to the fact that through the interest taken by the Board of Supervisors we have now a smallpox hospital, of which this city may be proud. If any of you have ever visited the shacks and hovels which were on the so-called pest-house ground before, you will notice an agreeable improvement when you visit the new institution. It is not palatial or beautiful, but it is well adapted to its purpose. I may say again that it is due to the interest of some of the lay members of the Board of Supervisors that this improvement, which was so sadly needed and has been so long desired by successive Boards of Health, could be obtained.

Doctor R. L. Porter: I want to say that I feel personally, and I think that every man in this room ought to feel proud to belong to a profession that can produce a Board of Health which can bring about such excellent results. It is no exaggeration to say that we have as efficient a Board of Health as any city in the world. It is no under-statement to say that the Board of Health does not get all the support from all of the members of the pro-

fession that it should. I believe that the time has come when the physician should look upon his position in relation to the Board of Health as does an attorney to the court. Every physician should be an aid to the Board of Health and help to uphold the sanitary law, and further, we should recognize the enormous power which the physician has as an educator, and we should make it a part of our duties to see that patients with whom we have personal influence should come to recognize and respect the inevitable demands the Board of Health must make upon individuals and upon the community.

Doctor A. J. Lartigau: Without wishing to enter into any formal discussion of Doctor Brodrick's paper I would like to ask in which drug stores are the swabs to be found. It has never been my fortune to find one which had them. For the convenience of practitioners I would, therefore, suggest that a list of the various drug stores having the swabs be sent to each physician and also that the office of the Board of Health be kept open after 5 p. m. for receiving the swabs from suspected cases. When speaking of typhoid fever did I understand the reader to say that physicians were expected to submit specimens of feces in all cases of enteric fever and that the findings would be used for quarantine purposes in this class of cases? If so, will Doctor Brodrick please outline his scheme of practical application. In speaking of vaccination in relation to smallpox the statement was made that a certificate was not to be issued until after the subject of vaccination had been under observation for 14 days. In instances, however, where repeated vaccinations have been negative what attitude should the physician take?

OBSTRUCTION OF THE COMMON DUCT IN CHRONIC CHOLECYSTITIS WITHOUT STONE.*

By ANDREW STEWART LOBINGIER, A. B., M. D.,
Los Angeles.

Attention is called briefly to a pathologic condition on which, as yet, no extended reports have been made, wherein the outflow of bile from the liver is materially retarded in its course through the common duct, and without the presence of stone, the constrictions of adhesions or inflammatory deposits, or of malignant change within or about the choledochus.

The etiology of this type of obstruction is not yet fully worked out, but it is probably infective at the start and later becomes complicated with morbid anatomic changes at the junction of the cystic and common duct, (*vide* Keith, Enteroptosis, *London Clinical Journal*), and possibly at the Vaterian ampulla. The liver is always turgid and somewhat enlarged, frequently extending for more than an inch below the costal border.

The anamnesis in this class of cases will at times show the infection to have been as remote as a decade previous to the symptomatic expression of its sequels and is as likely to have been a general cholangitis as a cholecystitis. After the subsidence of these inflammations, an interval of several years may pass before the least evidence of biliary stasis becomes manifest. There may have been an initial crisis of acute gallstone colic, associated with jaundice, to usher in the train of clinical symptoms which

follow somewhat tardily and interruptedly later. But more commonly no record of colic or jaundice is adduced. A typical symptomatology when the patient presents himself is as follows: He complains of fullness after eating, however light and digestible the meal. With these "dyspepsia cholica" signs there is more or less constant nausea. "Creeps" and chilliness may come over him, even while sitting in a warm room. A dull ache is constant in the gallbladder region. He is tender on pressure over Robson's point, and the Murphy test will cause him to flinch and cry out with pain. There is a distinctive cachexia, but no cholemic injection of either the conjunctiva, buccal mucosa or skin. Bile is rarely found in the urine, but bile pigments are greatly diminished in the stools.

A critical examination of the stomach and colon will reveal the fact that the condition is extra-gastric and extra-colic. In several cases I have had, chronic colitis was present, in two of them it was a prominent feature. In two cases there was an adherent appendix, in one the mesenteric and retroperitoneal glands had undergone caseous and calcareous change, probably in childhood. In no case was gastric or duodenal ulcer present nor were there scars of old ulcers. The greatest care was taken in the examination of the stomach in every case. So marked are the "dyspepsia" symptoms in these patients that treatment has hitherto been directed to the stomach. The disappointments which invariably followed this somewhat empiric practice have been the prime factor in inducing us to look farther for the trouble.

When the abdomen is opened the gall bladder is seen to project sometimes two centimeters below the liver. The gallbladder is distended, dark and shining and highly veined. The pylorus and gastrohepatic omentum also may have high veining and even varicosities, with velamentous adhesions to the base of the gallbladder. On pressure the bladder will not empty until the liver with attached gallbladder is lifted high and rotated outward. Even this procedure will fail in certain cases to facilitate the discharge of the contained bile, pointing to a constriction in the common duct as it passes through the pancreas or at the ampulla of Vater.

When the bile is withdrawn from the gall bladder it will be found to be very dark, thick and ropy with mucus, and will vary in quantity from 25 cc to 35 cc.

Cultures have usually shown coli present. The cystic mucosa is injected and swollen and in the follicles may be found a fine cholesterol sand of golden yellow color. This I have observed in three cases. In two of these there was a previous history of gallstone colic with associated jaundice. In no case of all those observed has there been a single gallstone found at the time of operation. And in not any of them have I met with appreciable resistance in passing the Moynihan probe through the common duct and ampulla. A distinguishing feature of the bile which drains away is that the flow is usually abundant from the start and continues dark for several days. This would point to a

* Read at the Thirty-ninth Annual Meeting of the State Society, San Jose, April, 1903.

free course through the cysticus and a definite engorgement of the hepatic ducts, due no doubt to mechanical backward pressure. After forty-eight hours the bile becomes steadily clearer until by the tenth day it has become of normal color. The specimens herewith exhibited are typical, and graphically point to indication for drainage.

Private communications from surgeons of large experience in gallbladder surgery, here and abroad, would indicate a singularly varied experience with drainage. A few have removed the gallbladder in the belief that the cystic duct was chiefly at fault, but the majority have established drainage. Some relapses are noted after six or eight months following drainage, but drainage has offered the results most hoped for and has seemed logical.

When we know certainly whether the obstruction is in the cystic duct just before its emergence, or whether, as seems more probable, it is due to a kinking of the choledochus at the emergence of the cystic duct, or to an obstruction near or at the ampulla of Vater, we shall be better able to judge between draining the gall bladder and removing it. Apart from a well founded diffidence toward cholecystectomy, except where the gallbladder is hopelessly destroyed, it has seemed to me especially contraindicated where, for apparent reasons, we may eventually find it necessary to establish permanent drainage into the duodenum. I have found some cases where a cholecystenterostomy was the only measure which offered permanent relief. And I have no hesitancy in suggesting it as being quite as justifiable in these unhappy cases of partially arrested bile excretion, with their melancholy train of symptoms, as in true organic obstruction with a well defined cholemia.

In the larger number of these cases, however, a cholecystosomy with high anchorage of the gallbladder, and carefully managed drainage for two and a half to three weeks, will be followed by a relief of the morbid symptoms so definite and marked as to amply justify the undertaking.

Discussion.

Doctor W. I. Terry: I have had two cases similar to those which Dr. Lobingier reported in which dark bile was found and which cleared up entirely after drainage of the gallbladder. The diagnosis made was that stone was present but I could find no stone nor obstruction of the ducts. I think that Dr. Lobingier's surmise that these cases are due to infection, seems most probable. Another class of obstruction with which I have met accompanied by this dark bile was due to a pseudo-membrane forming apparently in the gallbladder and becoming detached, slipping down into the common duct and producing a complete obstruction. In that case the diagnosis was made of obstruction by stone but the pseudo-membrane was found and removed by twisting and came out in its entirety preceded by the dark bile.

Dr. C. M. Cooper, San Francisco: Dr. Lobingier has drawn attention to a condition of things which I believe is not at all rare. I believe that this condition depends upon displacement of the liver which may or may not be associated with general visceroposis. When this occurs the gall bladder prolapses with the liver, the common bile duct remains more or less in position. As a result instead

of the gallbladder forming an angle of 45° with a vertical as it normally should it becomes vertical in position with the fundus downwards. Dutton Steele has shown that when this occurs the resistance to fluid passing from the gallbladder to the duodenum is equal to 40 cc. of water instead of the normal 15. There is produced, in fact, a kinking where the cystic duct joins the common bile duct and sometimes a hindrance to the passage of bile through the common duct into the duodenum owing to the prolapse of this latter structure which sometimes occurs. The cause of this partial obstruction is not recognized at operation since the patient is operated on in the supine position and the surgeon in examining the gallbladder undoes the displacement of the liver which has caused the trouble. Why do some of these cases relapse after treatment? In some, adhesions which are formed around the gallbladder are sufficient to keep it in position. In other cases these adhesions give and the kinking recurs causing a redevelopment of the symptoms. One question I would like to ask Dr. Lobingier; to what extent can the normal gallbladder be emptied and be kept empty in a normal individual?

Doctor C. G. Levison, San Francisco: There is one point in reference to the diagnosis of gallstone disease in its bearing upon obstruction of the gall ducts that I desire to emphasize. Murphy has laid down a law in which he claims that persistent jaundice unassociated with pain is always due to malignant disease, and he tells me that he has yet to see a case which is a refutation of his law. The following case, it seems to me, is in direct opposition to this statement. A woman aged seventy entered the hospital with persistent jaundice that had existed for a month and that had been unassociated with pain. An operation was performed and the gallbladder was found dilated. There were no signs of stone or chronic pancreatitis and nothing could be diagnosed excepting a dilated gallbladder which was drained. The icterus, however, did not clear up despite the profuse drainage of bile. Doctor Philip King Brown who saw the patient with me in consultation advised further exploration of the abdomen but I was opposed to operation because of the patient's condition, and also for the reason that I believed a malignant growth to be present. A second operation was performed and nothing further could be discovered. The attempt to probe the common duct was unsatisfactory and as the patient's condition precluded an extensive exploration nothing was revealed by the operation. She died in consequence of her condition and at the autopsy an obliteration caused by a small cicatrix at the point of union of the hepatic and cystic ducts was discovered. As the amount of bile had rapidly diminished during the last few days of life, the woman was markedly cholemic at the time of operation. There was no sign of malignancy; had I been able to discover the condition at the time of the operation, an anastomosis of the hepatic duct with the duodenum as has been performed by William J. Mayo and Terrier might have been done with benefit.

Doctor Lobingier: I have very little to add except to thank the gentlemen for their kind interest in my paper. There is a great deal of work going on in this subject among surgeons both here and abroad, but many men have not had their attention called to it as practically nothing has been written about it. I have found these patients constitute, in my practice, the most puzzling class of gallbladder cases. They call for critical analysis and judgment because of an uncertain pathology which keeps one in doubt. We have hesitated here because we have felt that the dictum of drainage or cholecystenterostomy which has always guided us when the condition was one of stone or inflammatory or non-inflammatory organic obstruction, in these cases

could not apply, and we were not justified in doing a cholecystenterostomy or could we consider that the condition justified drainage unless we found stones or chronic pancreatitis. I am sorry that I had not read the studies of Keith on enteroptosis because what he has written would have aided me in this paper. What I have presented was entirely my own view and I can justly claim some originality I think as to the possible kinking of the choledochus. I do not believe that the cystic or hepatic ducts in these cases are obstructed. I think you will be able to probe them easily as I have been able to do in every instance and for that reason I must come to the conclusion that there is some obstruction due to the position. Doctor Cooper's views are most interesting and valuable. I will not hedge on the question he has asked but answer frankly that unless the common or cystic ducts are obstructed the gallbladder can be emptied by pressure on it and by lifting the liver to straighten the choledochus. I believe that that will be found to be the observation of other men who have done a considerable amount of this work. The point which I wanted to make is that we have a static condition of the bile in the hepatic ducts and in the gallbladder which nothing but drainage and a change in the course of the choledochus will relieve. In this class of cases we are justified in doing a cholecystostomy and if that does not relieve then I believe we are justified in doing a cholecystenterostomy. Greatest care should be taken never to bring tension between the gallbladder and the intestine. The point in this technic of cholecystostomy is to leave the liver in such condition and raise its attachment so that you get a direct course through the choledochus into the duodenum.

GALACTOXISMUS.*

By W. W. ROBLEE, M. D., Riverside.

During the year just passed, more consideration has been given to the subject of pure milk supply than ever before. Practically all the studies, however, have been made with reference to sanitary methods of handling and the various forms of adulteration practised by the dealers. It seemed to me that we might, with benefit, consider one or two phases of the subject which have not been given so much study.

By galactoxismus, or milk poisoning, we refer to poisons which are excreted in the milk or are developed therein and which, when this milk is used as a food, may cause more or less serious symptoms to develop in the animal that uses it. I will not in this paper refer to chemicals used to preserve or adulterate milk.

The milk poisons may be divided into the following classes:

- 1st. Toxins resulting from bacterial growth.
- 2nd. Mineral poisons which may occur in the milk from the use of certain utensils as milk containers.
- 3rd. The poisons developing in the milk of diseased animals.
- 4th. Vegetable or mineral poisons which may be taken into the stomach of an animal producing milk, by way of the food or drink, which poisons may then be excreted in the milk and poison the individual using it.

In order that I may bring this paper within the time limit set, it will be necessary for me to pass over hurriedly all except the first and last subdivisions, which are the ones I want to call special attention to:

1st—Toxins resulting from bacterial growth. Vaughan called attention to this phase of the subject in 1884, when he and his students investigated an epidemic of cheese poisoning occurring in Michigan. They succeeded in isolating a crystalline substance of toxic character, which they named "tyrotoxicon." This same substance has been found in milk, ice cream, frozen custard, cream puffs and other articles of food consisting largely of milk. Since Vaughan's original investigation, many instances of epidemic milk poisoning have been reported which have proven to be due to this substance. The germ which produces this toxin bears a close resemblance to the colon bacillus, differing from it, however, in several important particulars. The symptoms are not unlike those from belladonna poisoning and a number of deaths have been reported from this cause. It can readily be seen that milk that has not been carefully handled can become contaminated with the various forms of the colon bacillus and on account of the toxin contained within the cells, render this and the food productions, of which milk is a constituent, more or less poisonous.

Tyrotoxicon should be borne in mind when we are called upon to treat cases of epidemic poisoning, and the ready general diagnosis of "ptomaine poisoning" should not be made until the milk supply has been investigated. Vaughan, Novv and Fluegge have each made numerous investigations proving that large numbers of bacteria, which produce their peculiar toxins, are found in milk. This is especially the case with the enteriditis group. According to Vaughan, Sonnenberger and others, the summer diarrheas of children are very frequently not due to a specific micro organism but to the poisons elaborated in milk by many different bacteria. Fluegge found and investigated twelve species of toxicogenic bacteria and found them to be toxic to mice, dogs, guinea pigs, etc., producing diarrhea, exhaustion and death. Leubbert found, in addition to the toxins, that these organisms act upon the proteids of the milk, the fat and milk sugar remaining unaffected. These results were confirmed by Vaughan. According to this author, the organisms responsible for cholera infantum are truly pathogenic in that they produce a definite chemical poison, the absorption of which is followed by the symptoms of the disease, and in order to explain the great susceptibility of infants to milk poisoning and the comparative immunity of the adult, he has advanced the view that the great susceptibility of children to such intoxications is due to the ease and readiness with which casein is absorbed by the mucous membrane of the intestine of children, and the casein carries along with it the bacterial cells containing this poison. In the adult, on the other hand, the digestive powers of the stomach are increased and intestinal absorption modified to a corresponding degree. At present practically nothing is known re-

* Read at the Thirty-ninth Annual Meeting of the State Society, San Jose, April, 1909.

garding the precise chemical nature of these bacterial poisons and, as already pointed out by Novy, investigations pertaining to a more exact study of the toxicogenic micro-organisms of milk and their poisonous products belong to the future of medical and chemical research.

The practical points to be gained from these observations are (a) that every effort should be directed toward the securing of a clean and wholesome milk supply. The certified milk plan should be encouraged and if possible adopted in each community under the direction and oversight of the County Medical Society and public health officials. In San Francisco, milk bought in open market was found to contain more bacteria per cc than were to be found in a like quantity of the city sewage. Such a condition of affairs can be duplicated in every community. Very often the dairies are less at fault than are the owners of private cows who supply one or two neighbors. The dairymen are fast becoming educated to produce wholesome milk whereas the private cow owners go on in the old filthy manner. (b) When an infant is taken ill with a summer diarrhea, the very first and most important treatment is thorough elimination of the contents of the stomach and bowels. Gastric and intestinal lavage and the free administration of castor oil should always be the first measures used in the treatment of these cases. They should be treated as cases of poisoning—1st, by the elimination of the unabsorbed poisons—2nd, by neutralizing the toxic effects of the poisons already absorbed through the use of stimulants and chemical antidotes. This is doubtless the manner in which some of our so-called intestinal antiseptics act.

2nd. Poisoning from milk by contamination from metal containers. Copper, zinc and lead have been noted in this connection and should be borne in mind. Sonnenberger has called special attention to this subject.

3rd. Poisons developing in the milk of diseased mothers. Michilozzi found a tuberculous poison which resists heating to 100° C, in milk from a tubercular mother, which caused a slow poisoning of the child. Le Blanc found that cows in heat gave milk which alters rapidly and causes gastro intestinal disturbances in young animals. This is true in febrile conditions of all varieties nearly and the milk is very prone to cause trouble in infants using the same.

4th. Vegetable or mineral poisons eaten by the mother and excreted in the milk. These may be from (a) medicines administered for therapeutic purposes, or (b) vegetable substances eaten by cattle, especially certain weeds which may form a portion of the diet of milk cows in some localities.

I have made a careful study of the literature bearing upon the elimination of drugs by way of the mother's milk. The American authors consulted were "The U. S. Dispensatory," Butler, Potter, Stevens, Bartholow, Wood and Cushney. The German authors were Sonnenberger and Constantine J. Bucura; the latter author has made a very exhaustive study of this subject and summarizes the

findings of a large number of European investigators. The drugs I have investigated are as follows: the vegetable acids, iron, quinin, mercury, arsenic, iodine, carbolic acid, salicylic acid, salol, iodoform, opium and its alkaloids, cannabis, indica, the bromides, pilocarpin, tartar emetic, ipecac, alum, castor oil, cascara sagrada, senna, bromine, lead, potassium, chloral, antipyrin, zinc, the salines, urotropin, aspirin, ether, asafoetida, colchicum, euphorbia, veratria and hemlock. This list comprises the principal drugs that might be used in prescribing for an illness of the mother. I investigated the fruit acids, alcohol and the laxatives especially for the reason that there has been a common impression that the eating of acid fruits by the mother would cause colic in the baby using her milk; our good but sometimes over-zealous temperance workers often speak of a baby acquiring a taste for alcohol through its mother's milk, and about the only medicines given a woman, convalescing from a confinement, are the various cathartics. I find a variety of opinions in regard to the various drugs mentioned, which, when closely investigated, very often do not rest upon reliable foundations. Of the American authors, Cushney has apparently done very careful work and is most guarded in his final conclusions. Sonnenberger and Bucura's articles are painstaking and I believe that the data upon which their conclusions are based are abundant enough to be most valuable. Taking the totals of all these authors, we find that the following drugs are spoken of as being excreted in the milk in greater or less quantities, usually the latter:—acetic acid, iron, salol, quinin, mercury, arsenic, iodine, carbolic acid, salicylic acid, iodoform, opium and its alkaloids, the bromides, pilocarpin, tartar emetic, ipecac, alum, castor oil, senna, lead, potassium, iodine, chloroform, ether, urotropin, aspirin, asafoetida, colchicum, euphorbia, veratria and hemlock. After careful study of these reports, I find that those drugs which are excreted by way of the milk in quantities that might affect the infant, appear to be very few in number. Most drugs excreted by the milk escape in such small quantities that they could not possibly affect the infant. Bucura reports aspirin, iodine, calomel, arsenic from the use of arsenous acid; bromine from potassium bromide and urotropin. All American authors lay stress upon senna as a milk laxative and probably calomel. One author only, Stevens, credits such an effect to castor oil. The salicylates probably are excreted in such amounts as to affect the infant when the mother has taken large doses.

Relative to acid fruits, I quote from Dr. Joseph H. Kastle, U. S. P. H. & M. H. S., in a personal letter to me, as follows: "So far as the excretion of fruit acids in the milk and their effect on the milk-secretion are concerned, but little is known. Bechamp claims to have found small amounts of acetic acid in freshly drawn cow's milk; this is now believed to be a decomposition product of citric acid, which has been found in human milk and in the milk of a number of animals. Bucura failed to find tartaric acid in milk following the administra-

tion of cream of tartar. The prevailing view in physiology is that the greater number of organic acids of the fatty series, which would include the acids ordinarily found in fruit, are completely oxidized in the animal body to carbon dioxide and water. Hence the only effect resulting from the administration of moderate amounts of such substances would possibly be to increase somewhat the alkalinity of the urine. My own opinion is that unless they tend to stop the flow of milk (and upon this point I am not informed) the eating of a reasonable amount of fruit by nursing women would be rather more beneficial than otherwise, for the reason that fruit juices tend to supply the organism with the alkali required for the neutralization of the acids resulting from proteid metabolism." This rather effectually disposes of the fruit acid idea. As to the excretion of alcohol, Cushney says, "There is no foundation for the legends that children may be intoxicated or acquire the taste for strong drink from the alcohol absorbed in the milk of a drunken mother or wet nurse. The amount and quality of the milk are unaffected by the administration of alcohol."

(b) Milk poisoning from plants and foods eaten by cattle. This is a subject about which there has been considerable uncertainty. Moore makes the following statement: "The flavor of milk is very readily affected by the character of the feed, as, for instance, by turnips, garlic, wild onions, moldy hay and grain, damaged ensilage and distillery grain. The latter is said to cause hyperacidity of the urine and consequent eczema. With proper precautions, however, these substances can be fed to dairy cattle without producing ill effects in the milk. The deleterious substances excreted with the milk are usually volatile oils contained in the food. They are found in the milk as well as in the body, generally in the largest quantity during the digestion of the food containing them, being eliminated rapidly through the various excretory channels. Thus, if these substances are fed eight or ten hours before milking, or if the cattle in the spring are moved from the pastures containing the garlic, this length of time before milking, there will be little or no danger of contaminating the milk. Over-kept, fermented and sour foods tend to produce acidity and other change in the milk. Swill, spoiled gluten meal and ensilage put up too green are all more or less injurious to milk. Distillery swill, in addition to the bad flavor it gives the milk, may cause the secretion of small quantities of alcohol in the fluid. That such alcoholic milk is deleterious to children as well as to the calves and lambs fed on it, is a well known and accepted fact."

Sonnenberger states that in Hesse, from thirty to forty varieties of weeds, poisonous to milk, may be found. He mentions especially: *lolium*, *temulentum*, *colchicum autumnale*, *digitalis purpurea*, *hyssopus niger*, *papaver somniferum*, *euphorbia*, *conium*, *maculatum*, *helleborus*, *sinapis*, etc. He found in harmony with this idea that the season for infantile diarrheas around Worms corresponds, not with the hot season, but with the season most favorable to the growth of weeds, viz: a cold, wet summer.

Walsh makes the same statement from observations he has made in Michigan. He is convinced that nine-tenths of the diarrheas of the cow's milk fed babies are due to a laxative property contained in the grasses, grains and weeds on which the cows feed in the pasture during the summer season and which is excreted in their milk. He calls attention to the fact that these diseases are most prevalent from June to September, during the weed season. He has observed that cows turned into a pasture eat greedily of the rich, juicy grasses and clover and that very soon they are scouring, the stools running from them like water. This occurs in animals a few weeks old; they eat no grass and depend entirely on the nurse for their maintenance. Sucking calves and colts are subject to diarrhea while the mothers are on pasture, frequently feces of a grass green color running away from them like water. These facts go to show that there are some cathartic properties in the grasses which are lost when the grass is dried in the form of hay. These apparent properties of the grasses are conveyed through the milk to the infants and are in such quantities that there is either an accumulation or an over-dose for its years, and it is not long in showing the toxin symptoms. In our own country, the disease known as "milk sickness" has generally been considered to be caused by the eating of poisonous plants. It is defined as an acute non-febrile disease, probably of a specific nature, due to the ingestion of milk, milk products, or the flesh of animals suffering from a disease known as "trembles." The disease in man is characterized by great depression, persistent vomiting, obstinate constipation and high mortality. It has been endemic in all states south of New York and as far west as Missouri and Arkansas. Some recent investigations by Jordan and Harris seem to indicate that the disease is probably of parasitic origin and not due to vegetable poisoning.

Of the American plants which might cause poisoning, *nicotinum*, *colchicum*, *cystisus*, loco weed and *zygadenus venenosus* or death camas are probably the only ones that need to be borne in mind, although turnips, garlic, wild onions, etc., may affect the taste and odor of the milk. A red color may be produced by the effects of bacteria, but is usually the result of a mixture of blood with the milk, it may also be caused by the eating of material containing large amounts of silica, as sedges, rushes, etc., or to plants containing red pigment, as madder root; other colors are produced by the eating of alkaret, field horse tail, meadow saffron and knot grass. In California, certain specimens of *nicotiana* and *cystisus*, while not native, have been introduced and flourish to some extent. The loco weed, probably, has given no trouble. The Bureau of Animal Industry in its bulletin, "Barium, a cause of loco weed disease," refers to an animal being locoed from feeding from a locoed mother and refers to the possibility of the disease being so transferred, but I find no case records in this or any other publication. Prof. H. W. Hall, of the Department of Botany, University of California, writes me as follows, in regard to the death camas: "So far as I am aware,

the stock-poisoning plants of California, with one exception, do not poison the milk when eaten by cows. This one exception is the death camas (*Zygadenus venenosus*), and I am not aware that even this has caused human poisoning. Chestnut and Wilcox, after extensive investigations in Montana, report that lambs are frequently killed by sucking milk from their mothers after these have eaten death camas. There is no evidence to show that cow's milk is poisoned in the same way, although this is probable. The death camas (family liliaceas) is plentiful in the low, moist but not marshy meadows of Northern California. It ranges as far southward as Palomar but south of Sacramento it occurs only in narrow belts along a few creeks and is not sufficiently abundant to cause trouble. Farther north, where it is variously known as sego, sego lily, lobelia (erroneously), etc., it is responsible for the death of a great many sheep by direct poisoning." This variety of poisoning certainly should be borne in mind by those physicians practising in the region referred to.

Schneidemuhl calls attention to the fact that all herbivorous animals are less susceptible to plant poison than the carnivorous and they may therefore have large quantities of plant alkaloids in the system which may be excreted by the milk and yet not show any symptoms of toxemia themselves. The ordinary methods of sterilization will destroy the germ life but will not destroy these chemical poisons. In Europe, Sonnenberger, Bediut, Minert, Gartin, Alt, Schneidemuhl, Escherich, Schulrath Dusch, Nessler and many others insist upon the importance of the plant alkaloids in relation to summer diarrhea. Their observations should be given due weight and I personally feel that this subject is one that will be worth very careful study. It is quite possible that close observation may lead us in this country to the same conclusion.

Summary. Probably the most dangerous poisons occurring in milk are those resulting from bacterial growth. This should spur us on to renewed efforts, looking toward an uncontaminated milk supply. The bacterial growth should be reduced to a minimum and especially is that true of the colon group.

Mineral poisons may occur in the milk from the use of metal containers but this is not a common source of poisoning.

Of the medicines excreted by way of the milk, senna and calomel should be especially borne in mind. Probably no other drugs, when given to the mother in ordinary medicinal doses, would appear in the milk in sufficient quantities to poison an infant.

Fruit acids and alcohol are not thus excreted.

In California, aside from the plants which affect the taste, odor and color of the milk but are not otherwise of moment, probably the death camas is the only one that needs to be watched for and this only in the northern valleys. This question, however, should be more carefully studied, and it is quite possible that more plants will be found to poison the milk. The dairy cattle should be fed upon well cured alfalfa or wheat hay and not be

allowed to wander at random in a pasture. Even harmless weeds often change the odor and taste of the milk and, doubtless, to some extent, tend to upset an infant's digestion.

Discussion.

Doctor R. Langley Porter, San Francisco: I have two comments to make. The first is that the so-called poisonings by mother's milk are almost always due to overfeeding by the mother. The two hour feeding interval is the common period given for infant feeding and a child fed every two hours will have colic and everything will be called upon to answer for the distress except the fact that the child is overfed. The second point which I wish to make is that certain plants cause diarrhea in cattle, being one of the things that gives rise to contamination of milk. Whenever a cow is attacked with diarrhea, and fecal matter accumulates and dries upon the skin, it very materially enhances the chances of the bacteria from the intestines entering the pail with the milk and that is the reason diarrhea in cattle is almost always followed by diarrhea in children.

PROFESSIONAL WORK AS IT CONNECTS WITH THE MEDICAL SOCIETY AND THE GENERAL PUBLIC.*

By WILLIAM T. BARRY, M. D., Santa Barbara.

I ask you to step aside for a few moments from the purely scientific path and consider with me professional work as it connects with our duties toward the Medical Society and the general public. By the medical society I mean more especially the county association (though in principle I include also the state and national bodies) and by the general public I mean the people locally, amongst whom we may be practicing our profession (though here again we will naturally broaden out into the state and nation).

Formerly the medical society had little place in the physician's field of responsibilities; he was slow in learning that he was failing in the full performance of his duties in not properly bringing before his compeers some of his more important failures, successes and discoveries; and that in a definite collective way before an assemblage of men united for the purpose of medical advancement and improvement. And moreover, that it was his duty in turn to listen to them, be admonished by and learn also from their valuable experiences; and so by mutual edification to advance medically and surgically, and to make both himself and his fellow-physician more useful to the public.

Time was when men neglecting or avoiding the medical society were not noticed much one way or the other, but each year makes such a course more and more conspicuous for the man following it. Too frequently they are the Ishmaelites of our profession with a hand turned continually, each against his fellow. I contend that it is the duty of physicians practicing medicine in the same community to know one another, and the only way possible this can be obtained is through the medical society with its regular meetings; there the common platform is purely scientific,—a man is not even

* Read at the Thirty-ninth Annual Meeting of the State Society, San Jose, April, 1909.

required to be the friend of those he meets,—is not forced to recognize or associate socially or even professionally, if he does not wish to. Friendship is a strange and rare quality we well know, and need not be considered; but though we may disapprove of or dislike a man, is no reason why we should not profit by his experience, and advice in things medical, nor why we should withhold from him precious knowledge whereby he can better save the health and lives of his patients. No, gentlemen, we have no right to be selfish in this important matter, we cannot be faithful to ourselves, to our patients and to the public if we neglect the medical society. Therefore, to sum up briefly, professional work seems to connect practically with the medical society as follows:

First. The medical society very plainly lies in the field of the physician's responsibilities.

Second. He is professionally obligated to report there his more important and instructive cases.

Third. It is his duty to lay aside mere personal likes and dislikes and cultivate at least a professional or scientific acquaintance with his fellow practitioners. In other words, he should be obedient to Chapter II, Article I, Section 3 of the Principles of Medical Ethics.

In the second section of my paper professional work as it connects with the general public, I must deal with a subject which has engendered much warmth, dispute and bitterness. The cool, unvarnished question is, To what extent has a physician the right to advertise his professional acquirements and work? Publicity, Publicity, Publicity is the motto of one of America's most famous journalists. Chapter Second, Article I, Section 7, Principles of Ethics, says: "It is incompatible with honorable standing in the profession to resort to public advertisements or private cards inviting the attention of persons afflicted with particular diseases; to promise radical cures,—to publish cases or operations in the daily prints, or to suffer such publications to be made; to invite laymen (other than relatives who may desire to be at hand) to be present at operations; to boast of cures and remedies; to adduce certificates of skill or success, or to employ any of the methods of charlatans."

Let us not be too much afraid of the word "advertise," for it has various shades of meaning. "Advertise": to give notice—to inform—to make known. "Advertise": to give public notice, or to announce publicity. Synonyms: inform, make known; announce; publish. Therefore, to the gentler and quieter interpretations of the meaning of the term "advertise" there can be no objections. In fact, when a man puts M. D. to his card or signature, he informs the world that he is in the healing art; and when he hangs his diploma or state certificate upon the wall, he announces publicly that he is prepared to do anything that may be rightly required of a physician and surgeon. Now, if all the town visited his office and examined his credentials, further advertising would not be necessitated, but all who have tried it know full well that a very thin stream of the public passes

through the reception room of the ordinary physician the first few years of practice. And yet the doctor must become known or he will starve to death! To accomplish this reasonable publicity, while at the same time improving himself, he is permitted to write scientific articles and read them occasionally before his professional brethren; or, he may write a book (sometimes a dangerous experiment) or publish contributions to a good medical magazine. All of which is most commendable and helps to establish his reputation with his fellow physicians. At this point I would emphasize my conviction that of all people in the world the most important to stand well with are the members of a man's own profession. I would rather be thought well of by one doctor than a hundred laymen. And so this work of the doctor as it connects with members of his own calling is most useful, and physicians should meet those sincere workers and show their appreciation by recognizing and encouraging true worth in all practical ways. But there still lies untouched the great outside public, which must always remain the true field of the physician's energy, for from thence come his patients and his support. And here, fortunately, there remains a scientific and still ethical manner of giving notice that he is actively engaged in medical work. The code of ethics states, Chapter 3: "It is the duty of physicians to be vigilant for the welfare of the community—they should be active on all subjects in relation to questions of sanitary policy, public hygiene and legal medicine; they should enlighten the public in regard to quarantine regulations, even at the risk of their own lives. They should enlighten on the great wrongs committed by charlatans."

Now here is a fine field for activity, in which I grant the primary moving spirit should be unselfish love for humanity, but secondarily it makes the diligent physician honorably known as one engaged in the practice of medicine. And if the code of ethics insists that a physician should be ready to risk his life for others, surely it cannot criticise him for bringing himself forward to the extent of becoming known and securing a livelihood. Humanity and science may require him to risk or sacrifice his life, but it does not say he must sit tamely and genteely in some cheap back office and starve to death. Yes, gentlemen, let us admire and applaud men ready to lay down their lives for humanity, but do not let us help to kill men struggling to make themselves known to the people by honest, scientific effort; nor be hypercritical of their methods of giving notice of their qualifications. I also believe it to be proper for the physician, particularly the younger men, and those starting practice in a new locality, to inform the people of their presence by an occasional well-timed, unobtrusive, well-constructed, scientific paper given to the press on some living, practical topic, which may happen to be interesting the public and where further enlightenment is needed. I do not believe a physician should force a topic upon the people just for the sake of bringing himself into notice; that might be classed as not strictly ethical. But, suppose, we

will say, that the town is interested in the disposal of garbage, or sewage. Now should our doctor be informed on the crematory method, we will say of New York City, for the burning of garbage; or the septic tank method for handling the sewage of the city of Glasgow—then surely his giving notice that a practicing physician amongst them understood these things would not be amiss. Nor would it be improper should a public meeting be called at the opera house for him, if invited, to speak on such subjects.

Alas! it sometimes happens that when a physician really commences to follow the principles of medical ethics as outlined in Chapter 3, Sections 1, 2, 3, 4, and 5 regarding his duties to the public, that he will be accused of trying to advertise himself.

Indeed, I sadly fear that if a physician really lived up to and carried into daily practice the principles of medical ethics as adopted, recommended and promulgated by the A. M. A. in its three Chapters, six Articles and fifty-three Sections, it might raise from some quarters such a storm of protest and indignation as to endanger his very license.

THE TOXEMIC FACTOR IN RHEUMATOID ARTHRITIS.*

By CARL C. WARDEN, M. D., Los Angeles.

Briefly summarized, the factors etiologically associated with the variety of arthritic conditions grouped under the name of rheumatoid arthritis, are the nervous, the bacterial and the toxic. The classification of the arthritic troubles themselves is not so easy or so brief. One of the most satisfactory is that of Goldthwaite, of Boston, who mentions:

1. Chronic villous arthritis (dry joint).
2. Atrophic arthritis (rheumatoid).
3. Hypertrophic arthritis (osteo).
4. Infective arthritis.
5. Metabolic arthritis (gout).

Of these Garrod disregards the first and last and adds *spondylitis deformans*.

The term rheumatoid should be disregarded altogether since it is at best a vague and misleading term, and a classification made based on a more comprehensive clinical description. I prefer to adopt that system which disregards gout altogether and groups all the systemic joint troubles under the heads of *hypertrophic* and *atrophic* arthritis and Still's disease of children, which alone seems to fall under neither division.

The hypertrophic varieties are observed in two clinical forms:

- (a) The monoarticular type of old age (osteoarthritic hip).
- (b) The polyarticular type, seen past midlife, oftenest in women, with Herberden's nodes common.

The atrophic varieties are subdivided into:

- (a) Acute polyarticular type affecting children and young adults.

- (b) Chronic polyarticular type of midlife.

If now we relegate Still's disease, which really does not belong to this class at all since its pathology is wholly different, we can exclude it from our discussion, along with gout and the infectious forms, such as gonorrheal and septic (though we are obliged to admit that the infectious forms are occasionally precursors of the atrophic type). We now have to consider merely the hypertrophic and atrophic forms, and when we regard the pathology of these states and the numerous cases which merge one into the other, it becomes a temptation to call all these states various modifications of one pathological condition, a systemic arthritis.

Postmortem examinations, histological and macroscopics show that at various stages of the morbid process the same changes occur in the tissues in both hypertrophic and atrophic forms. The alterations in the soft parts around the joints are practically the same in each form. The alterations in joint cartilage and the articular surfaces of the bones shade from one into the other in both varieties. In one there may be preponderance of atrophy, in another hypertrophy, but in the latter case the overgrowth almost always follows on primary atrophy. The distinction marked by *wet* and *dry* joints does not always hold good, since not infrequently effusions will form in joints in the one case hypertrophic, in the other atrophic. By our term rheumatoid arthritis then I mean to include these two forms of chronic arthritis trouble and I venture to suggest the term chronic toxic arthritis as one more appropriate than rheumatoid.

The nervous theory of causation advanced by Remak and defended by Senator, Ord, Spender, Ross, MacMahon and others,—and advanced chiefly because of the resemblance of toxic joints to the trophic joints of Charcot,—flies widest of the mark inasmuch as it does not explain either the majority of the lesions or exclude other possible causes. The bacterial theory of causation has many advocates and comes nearer filling the requirements. Braumler of Freiburg observed the frequency of toxic joints following the acute joint infections. Schuller in 1893 isolated a bacillus from the joint of effusions. Bannantyne, Wohlmann and Blaxall also found a bacillus. Painter was unable to find it. Poynton and Payne observed a minute diplococcus in several cases. Many investigators have seen this latter organism. I have myself observed it in two cases, but all agree that the organism is not to be found in every case, even when joint effusions exist.

A toxic theory is most satisfactory for many reasons. In the first place, it does not exclude a primary microbic infection, in fact, it may assume it, the lasting and crippling lesions appearing only when the infection, however slight, has long since subsided; and in the second place, it does not necessarily postulate an infective cause inasmuch as evidences of bacterial damage may be wholly lacking and yet a toxic cause remain. Llewellyn Jones sees many factors in the disease comparable to the processes at work in Raynaud's disease, tetany,

* Read at the Thirty-ninth Annual Meeting of the State Society, San Jose, April, 1909.

migraine, etc. He describes pathological changes in the liver, spleen, kidneys, pancreas, ovaries and arteries, but makes no mention of the digestive apparatus beyond a macroscopic intestinal thickening. Clark of Edinburgh, on the other hand, makes the intestinal canal largely responsible for the production of toxins. Chalmers Watson agrees. Luff assigns the difficulty to an infection from some mucous membrane. Cave mentions many sources of toxin, rectal ulcers among them, but lays greatest stress on pyorrhea alveolaris. Tubby and Payne support this view, the former stating that almost invariably these cases had carious teeth, the latter that joint trouble was frequently observed by him in patients having pyorrhea alveolaris. Tubby cites largely from a valuable report of Andrews and Hoke on the "Relation of Albuminous Putrefaction of the Intestines to Arthritis Deformans and Its Influence on Treatment." In this paper the authors quote Herter's classification of three types of intestinal putrefaction

(a) The Indolic type, occurring in the entire intestinal canal, in which quantities of indol are made and in which the bacillus coli appears.

(b) The Saccharo-Butyric type, occurring in the lower ileum and large bowel, caused by anaerobic organisms for the most part, in which the stools may be acid, and indol is not excessive.

(c) The combined type.

Herter is also credited with the statement that the intestinal flora both as to numbers and character is influenced especially by the quantity of albuminous food taken, the anaerobes diminishing with decrease of nitrogenous food and the concomitant decrease in nitrogenous putrefaction. Combe of Lausanne in his recent book on the Diseases of Children lays stress on the train of evils resulting from proteid putrefaction in the intestinal canal. He indexes the degree of putrefaction by quantitative estimations of urinary indican and the higher etheral sulphates and by the alkalimetric observations of the feces. The theories of Metschnikoff on longevity have gone so far as to reach lay readers and his work on intestinal bacterial putrefaction has stimulated many observations on the question. Metschnikoff contends that albuminous putrefaction is frequently due to the pathological abundance in the intestinal canal of anaerobic, alkali producing organisms, which condition alters the normal acidity of bowel contents, banishes aerobic flora from the intestine and causes an abnormal splitting of nitrogenous molecules into toxic radicals which, once absorbed, lead to systemic toxemia. It is this toxemia which we seize upon as an etiologic factor in rheumatoid arthritis. Metschnikoff and his followers commended as a therapeutic measure the reduction of nitrogenous food in the dietary together with the correction of alkalinity and anaerobic invasion by administering lactic acid producing organisms which in suitable media will generate nascent lactic acid in the intestinal canal and assist in rendering the digestive tract uninhabitable by these noxious bacteria. With this end in view he gives

lus or streptococcus lacticus and the bacillus of Massol. In the laboratory the sterile milk is prepared by inoculation with cultures, in the homes by the liquid milk starters and compressed tablets now supplied by the commercial pharmaceutical houses.

Tubby reports several cases of toxemic arthritis treated by this method with very encouraging results. We, personally, have under observation at present three cases of toxemic polyarthritis. Two are of the hypertrophic type, in women under thirty, one of the atrophic form in a man of thirty, the bony and periarticular changes showing well in radiograms. These patients at the outset of treatment had indican in the urine in great excess. In all there was a history of digestive disturbances of long standing with constipation and occasional attacks of diarrhea. The feces of each was markedly alkaline in reaction and contained many anaerobic bacteria, the bacillus enteritidis sporogenes important among them. The treatment has consisted of daily bowel evacuations by agents best suited to the individual case, the administration of intestinal antiseptics like salol and guaiacol carbonate, and artificially soured milk in quantities of at least one pint daily. All meat in the diet has been interdicted. The custom has been to prepare the milk in our laboratory by inoculating sterilized milk, preferably skimmed, with pure cultures of the streptococcus lacticus and the Bulgarian bacillus of Massol and incubating over night at 37°. The product is smooth with well marked odor and taste of lactic acid. From this supply starters of one ounce quantity are given the nurses with instructions for the preparation of the milk at the patients' homes. A portion of the supply made in this manner may be used as starter for the next day's ration and this process carried on for a week when usually contamination will have begun and fresh pure cultures are required. The preparations sold by the pharmaceutical houses answer fairly well, but they almost invariably contain yeasts which while harmless are apt to make the soured milk unpalatable.

Under this simple treatment the patients have improved, two of them remarkably, the third to some extent only owing to the brief time he has been under care. The chief improvement is shown by the lowering of temperature, the reduction in periarticular swellings and effusions, the greatly increased range of motion, the diminution of pain and a general amelioration of subjective feeling. One case is complicated by a chronic parenchymatous nephritis, but the kidneys have improved *pari passu* with the arthritic troubles as shown by considerable reductions in the number of casts and the quantity of albumen. There has been a steady reduction of the quantity of indican in the urine. In one case it has entirely disappeared. The history of illness in one woman dates back nine years, in the other, two. The improvement in the former case, despite the nephritic handicap is most encouraging. The second woman has in six months' time come from absolute helplessness in bed to her wheel-chair, her fancy work and piano exercises, with entire sub-

sidence of inflammatory trouble about the joints. I believe the most valuable adjunct to the treatment of these cases to be the passive hyperemia of Bier. It has appeared to exert a marked influence on the pain in the joints and to have assisted in the absorption of joint exudates.

THE RELATION OF RAT LEPROSY TO HUMAN LEPROSY.*

(With an Exhibit of Gross and Microscopic Specimens.)

By WM. B. WHERRY, M. D., San Francisco.

It seemed worth while, in connection with Doctor Clark's exhibit of cases of human leprosy, to show you some specimens from a very closely related, if not identical, disease which occurs in the rat. Leprosy in rats has been known for a number of years and has been recorded in England, Southern Russia, Roumania, India, and the region about San Francisco Bay.

The disease has usually been found in connection with the examination of large numbers of rats for plague and no doubt further investigation will show that it is quite prevalent among rats all over the world. It is characterized by a granulomatous proliferation of the subcutaneous tissues, leading to a marked thickening of the skin, alopecia, and ulceration. In some cases the peripheral nerves are involved, resulting in the loss of fingers and toes or the tail. Acid-proof bacilli resembling those found in human leprosy occur in enormous numbers in the affected tissues. Upon histological examination the changes in the skin closely resemble those found in human leprosy. The disease may be transmitted by inoculation from rat to rat but not to guinea pigs, rabbits nor monkeys. Such inoculated rats develop the disease very slowly and it is only after several months have elapsed that definite signs of the disease are found.

This disease is of particular interest because it furnishes material for experiments of a comparative nature, whereby we may gain some idea as to how human leprosy is transmitted. It widens the field for research on such problems as the early diagnosis of leprosy—the production of immunity to leprosy—and the treatment of leprosy.

It is generally believed that the bacillus of rat leprosy has become specialized in the rat and differs from the human leprosy bacillus to about the same degree that bovine tubercle bacilli differ from human tubercle bacilli. The recent work of Mezincescu (*Comp. Rend. Soc. Biol.*, 1909, 66, 56), would seem to support this idea. This investigator, working in Roumania, tested the ability of rat lepra bacilli to fix complement according to the Bordet-Gengou reaction. Of the sera from twenty-four cases of human leprosy (tubercular, mixed, and anesthetic cases) twenty gave complete fixation; two slow fixation; and with two fixation was negative. He controlled a certain number of these cases by tests with extracts of the tubercle bacillus and para-

tubercle bacilli (Timothy-Mist) with entirely negative results. He believes that his observations point to a very close relation between rat leprosy and human leprosy. (A leper rat caught last Saturday at 21st and Broadway, Oakland, is on exhibition. Also a section of skin from a leper rat showing the enormous numbers of acid-proof bacilli present in this disease.)

REPORT OF A CASE OF TRANSIENT CYCLOPLEGIA DUE TO GLYCOSURIA.*

By W. HUMES ROBERTS, M. D., Pasadena.

Paralysis of accommodation, due to diabetes, is sufficiently rare to warrant the report of the following case:

Mr. W., aged 51, first consulted me March 30, 1908, concerning a tickling in his throat, which had troubled him for about two weeks. He was coughing a great deal, he felt and looked sick, and he had recently lost flesh.

Examination showed his uvula was thickened and elongated, fauces congested; right cord somewhat immovable, irregular in outline, and reddened near the arytenoid cartilage.

Fearing that a tubercular process might be commencing in his lungs, I advised him to consult a general physician for a physical examination. He placed himself under the care of Dr. Joseph D. Condit. Dr. Condit reported to me that there was no evidence of tuberculosis, but that his urine contained 7% of sugar.

Under appropriate diet, the sugar began to lessen, so that by the 7th of April it was down to 5-8%, and his weight, which was 133 pounds, began to increase. By the 29th of April all sugar had disappeared from his urine, and, when last observed by Dr. Condit on the 22nd of July, his weight had increased to 142 pounds.

On the 15th of April, when he had been under Dr. Condit's care for two weeks, his urine showed only $\frac{3}{8}\%$ of sugar. At that time, he came to me again, saying that for a few days past he had been unable to read with his glasses, which had theretofore been perfectly satisfactory, and that he now needed them to see with in the distance. Until he noticed this failure of his glasses for reading, his vision for distance had been perfect; but now he could not see in the distance without the use of his old reading glasses.

I found that he had been using for reading a pair of + sph. 1.75

At that time O. D. V.=6/22.5

O. S. V.=6/15

Manifest examination showed

O. D. + sph. 1.75=6/5

O. S. + sph. 1.75=6/5 $1\frac{1}{2}^\circ$ esophoria.

For reading at thirteen inches, he required to be added to the above + sph. 2.25.

External examination of the eyes showed everything normal; pupils were of normal size, and they reacted to light and accommodation. Ophthalmoscopic examination showed the media clear and the fundi normal. A test on the following day confirmed this examination, so I ordered the foregoing lenses for him.

On the 18th of May he came in again very much improved in his general health. He said that until within a few days, these last glasses had been perfectly satisfactory; but that now he could not see so clearly in the distance with them, and he found that he had to hold newspapers and books too close to his eyes to read with comfort. His vision with his distance glasses now was only 6/12.

* Read at the Thirty-ninth Annual Meeting of the State Society, San Jose, April, 1909.

* Read at the Thirty-ninth Annual Meeting of the State Society, San Jose, April, 1909.

Manifest examination showed

O. D. V. 6/15 + sph. 1 = 6/5

O. S. V. 6/9 + sph. 0.75 = 6/5

with + sph. 2.25 added for near,
and these I ordered.

Shortly after this Mr. W. returned to his home in the East. In a letter, dated Feb. 8th of this year, he wrote me that his eyesight was very much better than when he was in Pasadena last year. His accommodation continued to return so that it was necessary for him to go back to the original reading glasses which he was using when he first came to me. A few days before writing to me he had broken his old lenses, and, for a short time, he had made use of the ones I had last given him, which brought his near point within eight or ten inches of his eyes. His general health has been excellent, though he is still very careful in his diet.

Dr. Geo. M. Gould, in an article on "The Refraction Changes Dependent Upon Glycosuria,"¹ has collected twenty-two cases in which changes have occurred. These he has arranged in three groups: the first consists of six cases, and shows an increase of myopia; the second is made up of eight cases in which hyperopia is diminished, which is a change similar in character to those in the first; the third is composed of eight cases in which an increase of hyperopia is noted.

We are not concerned with the first and second groups; but in the third group we are interested, for the case just reported seems to belong to this class. In all eight cases, an increase of hyperopia is noted; and, in seven of these eight cases, it disappears, returning to the original amount with the subsidence of the sugar.

As an increase of myopia is the most common refraction change occurring in diabetes, and as fourteen of the twenty-two cases reported in Dr. Gould's article had such changes, Dr. Gould is inclined to belittle the findings of the men who report the eight cases of increased hyperopia, claiming that the observations are unreliable, inasmuch as a mydriatic was used in but one case, that of a boy of seventeen. The ages of five of the remaining patients are 40, 55, 68, 51 and 53, in each of whom there could have been but slight latent hyperopia. Undoubtedly, in each of these eight cases, there was a paralysis of accommodation; although such an explanation for the increased hyperopia does not seem to have occurred to Dr. Gould, who says: "When eight reporters find such an illogical, if not impossible, reversal of the natural consequences as testified to by fourteen, it behooves us to doubt the accuracy of the oculists' tests and reports, rather than to indulge a belief in the inherently improbable and impossible."

Delord and Revel² report a case, very similar to mine, in a woman 48 years of age. She had a sudden bilateral paralysis of accommodation, without involvement of the sphincter pupillæ. With the disappearance of the sugar from her urine, she regained her accommodation. With Schmidt-Rimpler, these authors agree that cycloplegia from diabetes is rare, which is contrary to the opinion held by Wecker and Landolt.

Of particular interest to me in the history of my patient, was the fact that his cycloplegia did not

appear until after his health had begun to improve, when the sugar had decreased from 7% to about ½%, showing that possibly a similar toxin to that causing a post-diphtheritic paralysis, caused the lesion.

The prognosis in diabetic cycloplegia seems very favorable, as, in the majority of cases, under proper dieting, the sugar can be eliminated from the urine, and the ciliary muscle regains its function.

REFERENCES:

1. Gould. The Refraction—Changes Dependent upon Glycosuria. Medical Record, April 20, 1907.
2. Delord & Revel. Paralysis of the accommodation in diabetes. Archives d'ophtalmologie, XXVII, p. 764.

Discussion.

Doctor F. H. Rogers, Long Beach: The paper presented is one of a little more than usual interest to me and it seems that the rarity of cycloplegia and its importance merits more than passing notice. I cannot recite any considerable number of cases of this kind and I regret, having met with one case which perhaps had some points in common with the one just reported, that I did not take the trouble to replenish my memory as it occurred some years ago. About twelve years ago a case came under my notice. The patient was a woman of perhaps thirty-six years of age, a school teacher, who was riding with a friend in a carriage behind a horse which became frightened by a passing train and ran away. The ladies were thrown out and the teacher was dragged some little distance. She suffered no bodily injury and I was not called to the case until she had largely recovered from the shock. My attention was called to the case as a result of the failure on the part of her glasses, which she had worn for ten years previously, to relieve the symptoms of headache and general refraction, as they had before satisfactorily done. Test made of her refraction showed that she required for perfect vision about twice the amount of correction that she had had before. The new glasses she wore for about three or four months when she returned saying she was obliged to hold the paper too close to her eyes and that her distant vision, which had been good, was becoming worse. Without re-examining I gave her a reduction of about one-half diopter which she wore for three or four months. She then returned again and as a matter of experiment I gave her her old lenses which proved to be entirely satisfactory. I watched the case for two or three years, during which time she wore her original glasses. With our present knowledge of diabetic conditions we know this is a nervous condition not very well understood and we believe that this case while free from diabetic symptoms was one of nervous disturbance of some cause. I thought of hysteria though she was not a subject of hysterical manifestations. The case reported by Doctor Roberts was one of diabetic cycloplegia which of course is very rare, while the one which I mention was a nervous disturbance.

SOCIETY REPORTS ALAMEDA COUNTY.

At the July meeting of the Alameda County Society a most interesting symposium on tuberculosis was the order of the evening. Dr. von Adelung discussed tuberculin and Dr. Clark the subject of genito-urinary tuberculosis. Dr. Rixford of San Francisco spoke on bone tuberculosis, and Dr. Cooper of San Francisco on the use of X-ray and the interpretation of plates. The papers are to appear in an early issue of the Journal. The following preamble and resolution were adopted:

Whereas, Dr. Philip Mills Jones, Secretary of the State Society, in voluntarily reducing his own salary

\$500 in order to assist to that extent the financial condition of the Society, performed an altruistic act worthy of the highest commendation;

Resolved, That the Alameda County Medical Society begs to express to Dr. Jones its appreciation of his disinterested action, and congratulates the Society on having a Secretary with so high an ideal of his relations to his fellow-members.

M. L. EMERSON, Secretary.

PACIFIC ASSOCIATION OF RAILWAY SURGEONS.

The regular annual meeting of the Pacific Association of Railway Surgeons will take place on August 27th and 28th at the St. Francis Hotel, San Francisco.

On the 27th there will be a morning session from 10 a. m. to 12 m., followed by a luncheon, also an afternoon session.

On the 28th, the morning will be spent at various hospitals, where clinical cases will be demonstrated; also an afternoon session, followed by a banquet in the evening. The new Southern Pacific railroad hospital will be fully completed by this time.

The luncheon and banquet will be served by the Association without cost to the members.

The Association has made rapid strides during the last year, about thirty applications for membership having been received. We expect to have a very interesting scientific program; the social feature will, however, not be overlooked. All proceedings will be published in the California State Journal as heretofore.

I write you this letter particularly requesting that, if you have anything that would be of interest to the society as a demonstration of a case or reading of a paper, you will kindly inform me not later than July 1st, so that we may arrange our preliminary program.

PROGRAM TO DATE, JULY 14, 1909.

1. "Gun Shot Wound of the Heart with Recovery," C. J. Teass, Kennet, Cal.
2. "Fractures of the Humerus Through the Musculo-spiral Groove, Treatment," Rexwald Brown, Santa Barbara, Cal.
3. "The Essentials of Surgical Diagnosis with Special Reference to Traumatic Conditions," T. W. Huntington, San Francisco.
4. "Cavity Formation in the Spinal Cord Due to Trauma," E. T. Dillon, Los Angeles.
5. "The Problem Presented by the Tuberculosis Railway Employee," R. A. Peers, Colfax, Cal.
6. "Abdominal Injuries, with Reference to Early Diagnosis and Treatment," R. T. Legge, McCloud, Cal.
7. "Importance of Enucleation of Tonsil in its Bearing on General Infections," Redmond Payne, San Francisco.
8. Presentation of cases, Wallace I. Terry, San Francisco.
9. "X-Ray," Charles M. Cooper, San Francisco.
10. "Surgical Shock" (possibly), David Powell, Marysville, Cal.
11. Several interesting cases (possibly), A. M. Henderson, Sacramento, Cal.

Very truly yours,

GEO. R. CARSON,

Secretary.

ALASKA-YUKON-PACIFIC EXPOSITION.

California State Journal of Medicine,

Gentlemen:

The A. Y. P. Exposition will open June 1st, closing Oct. 16th. No doubt many of your subscribers will pay the exposition and the Pacific Northwest a visit.

We have a modern equipped Emergency Hospital, and have set aside a room for visiting physicians,

where they may receive their mail, write letters, etc. Will you kindly announce to your subscribers that any physician visiting the exposition may have his mail sent in care of the Emergency Hospital at the A. Y. P.?

We would appreciate it very much, if you would send us a copy, or two, of your magazine, to have on the center-table for the use of visiting physicians.

Respectfully,

E. M. RININGER.

MEDICAL FAKIRS.

There is a disposition among the medical men of the State of Illinois to make it more difficult for young men to enter the profession. They contend that the tone has suffered because of lax graduation laws and because of indifference on the part of physicians to the need of restrictive provisions by which only properly-trained men may become practitioners. Half-educated, half-witted, in some cases "illiterate clowns," put out their shingles by the side of men who spent years in preparation and who are really qualified in the highest sense for practice. Thus the profession is crowded, reduced in standing, and in some communities disgraced, all because of the ease with which these "duffers" work their way into the ranks of good men.

A little while ago, at a banquet of medical men in California, the writer heard a speaker discuss the uses of the microscope. He had none himself, he said, and it was well he hadn't, "for if I had I would simply play h— using it." He added that many who did have them used them for "show," and knew little more about them than he did. There was probably a lot of truth in the statement of this country physician, who might have said too that if the physicians who could not write an intelligent prescription were weeded out there would be little complaint of overcrowding in California. For here, as in Illinois, the "correspondence" graduate is about as numerous and pretentious a creature as we have in the State. He puts a gilt frame about an elaborate credential, hangs it upon his office wall, looks into the faces of his victims with an air of wisdom which Plato might envy, feels the pulse, dashes off a stereotyped prescription, and with a smile of assurance tells the patient, whose trouble is probably in his head, that he will be well in the morning.

The medical profession, "the first estate," should have in its men of culture and training, of good manners and address. Their very appearance in public places should command respect, not derision, as is too often the case. The interloper should be driven out or kept out by qualifying examinations which he cannot pass. In some countries he is obliged to obtain his Arts Degree before he is considered capable of grasping the problems of therapeutics. And when he has passed his last examination he is put through another and more difficult test by a Board known as a Medical Council, which finally determines his fitness for active practice. A profession as honorable and as useful should not be permitted to degenerate into "fakery" simply because of the laxity of the very men whose interest it is to see that unscrupulous ill-trained men are kept out.—San Jose Mercury.

A FEW KIND WORDS.

June 3, 1909.

California State Journal of Medicine;

Gentlemen:

I am writing this to offer you my congratulations on your good work to rid the medical profession of incompetency and commercialism.

The Journal of the American Medical Association and the Cal. State Journal of Medicine are doing more for the cause of honesty and to dislodge the grasp of the nostrum vendors from the profession

than all the other medical journals combined.

My office is invaded every day by the distributors of all kinds of manufactured trash for the doctor who does not think and I turn them all down, saying to them that I am prescribing only official preparations.

There are hundreds of other physicians who are doing the same and it is a pleasure to have a few good journals that will not sell themselves for a few dirty dollars.

I am writing this simply to tell you that I am one of the many who appreciate your good work.

Very sincerely yours,

M. M. C.

BOOKS REVIEWED

Surgical Memoirs and Other Essays. By James G. Mumford, M. D., Instructor in Surgery, Harvard Medical School; Visiting Surgeon to the Massachusetts General Hospital; Fellow of the American Surgical Association, etc., etc. Illustrated. Moffat, Yard & Company, New York, 1908.

For more than half a century the avocation of letters has among medical men been submerged in a flood of scientific enthusiasm. Advantageous as this may have been for science, so exclusive a devotion has unfortunately very materially narrowed the mental horizon of the physician to many interests not immediately connected with professional activities. Imprisoned within the confines of his medical experience, deprived of stimulating and broadening influences such as are imparted by literature, especially history, he has, to a notable extent, lost that sense of large proportion in things, that all-embracing prospect of life as a whole, which so eminently characterizes the man of culture and philosophic insight.

Unfavorable, however, as are the conditions of our calling and individual circumstances for the cultivation of esthetic and philosophic appreciations of life, a small but increasing number of us, inspired by a few illustrious examples, have turned to various avocations for wider and more sympathetic outlooks than those afforded by medicine alone. While some have not hesitated to venture into the broad field of *belles lettres* the majority have been content to travel the narrower but none the less interesting byways of ancient medicine, possibly with the view that "a man who does not know what has been thought by those who have gone before him is sure to set an undue value upon his own ideas."

With the wealth of possibilities in the treatment of new and unessayed materials or in the recasting of much of the old according to accredited methods of present historical investigation, the loftiest aspirations of the student may be realized. The older accounts of the history of medicine conceived from what now must appear as very narrow viewpoints gave us no insight into the varied and manifold conditions which have swayed the thought of medical men in different periods. That medicine has been profoundly affected by political, religious, philosophical and other social and intellectual influences has been usually overlooked, although over forty years ago, in an address entitled "Currents and Counter-Currents in Medical Science," Oliver Wen-

dell Holmes with his usual perception drew attention to them.

"Observe the coincidences between certain great political and intellectual periods and the appearance of illustrious medical reformers and teachers. It was in the age of Pericles, of Socrates, of Plato, of Phidias, that Hippocrates gave to medical knowledge the form which it retained for twenty centuries. With the world-conquering Alexander, the world-embracing Aristotle, approximating anatomy and physiology, among his manifold spoils of study, marched abreast of his royal pupil to wider conquests. Under the same Ptolomies who founded the Alexandrian Library and Museum, and ordered the Septuagint version of the Hebrew Scriptures, the infallible Herophilus made those six hundred dissections of which Tertullian accused him, and the sagacious Erasistratus introduced the mild antiphlogistic treatment, in opposition to the polypharmacy and the antidotal practice of his time. It is significant that the large-minded Galen should have been the physician and friend of the imperial philosopher, Marcus Aurelius. Harvey himself was but the posthumous child of the great Elizabethan period. And is it to be looked at as a mere accidental coincidence, that while Napoleon was modernizing the political world, Bichat was revolutionizing the science and art that is based upon it; that while the young general was scaling the Alps, the young surgeon was climbing the steeper summits of unexplored nature; that the same year read the announcement of those admirable 'Researches on Life and Death,' and the bulletins of the battle of Marengo?"

Desirable as a critical estimate of the history of medicine would be from this standpoint, it is probable that with the facts at hand, this would be impossible at least for the present. But, if as has sometimes been asserted, history is the essence of innumerable biographies we may look in the near future to this class of literature for interesting revelations. The vast majority of them of course tell the same monotonous tale. "But in the lives of great men the spirit of the age in which they worked is, in some sort incarnate and so may be most fruitfully studied. Cicero, in a well known passage, speaks of them as luminaries in the world's career. So they are. And they radiate light on their times. They see by the illumination of genius which is in them; and in their light we may see light."

It is in this sense that the volume,* the subject of this review, will especially appeal to the discriminating reader. Written by one well versed in the story of ancient medicine, this collection of essays dealing with characters taken from widely different ages, constitutes in a way a narrative of surgery. Here we have a gallery of condensed portraits of masters of surgery, each less than half-length, but large enough to show the head and the hand: the "life

* **Surgical Memoirs and Other Essays.** By James G. Mumford, M. D., Instructor in Surgery, Harvard Medical School; Visiting Surgeon to the Massachusetts General Hospital; Fellow of the American Surgical Association, etc., etc. Illustrated. Moffat, Yard & Company, New York, 1908.

illustrated by the work, the work relieved by the life."

In the first essay looms Hippocrates, towering in an earlier but refined civilization—a prophet giving articulate expression to the formless learning of first experience. As the Father of Medicine many have regarded him no less than its creator, forgetting that with the world of intellectual production as with that of organic generation, nature makes no sudden starts. The name of Hippocrates is daily on our lips, but the names of those who prepared the world for him "have remained as unnoticed upon the horizon of time as the stars by day, not even to be descried when the great central figure which eclipsed them was in its nadir." As Osler says, "such renown as they had time has blotted out, and on them the iniquity of oblivion has blindly scattered her poppy."

Although the surgery and medicine of Egypt meant something to the world for more than a thousand years, it remained for Hippocrates to preserve for posterity what was essential in its teachings. Two characteristics stand out prominently in his writings: In the first place it is evident as Billings very properly states "that one of his special aims was to be entirely honest and truthful in his statements. He reports no marvelous cures, no specimens of extraordinary success in diagnosis where others had failed; fatal cases are given as well as recoveries, and there are no hints that the former were not seen in time or that they had been improperly treated by others. He seems to have written mainly for the purpose of telling what he himself knew. "A second characteristic is the special attention given to those symptoms which indicate the effect which the disease is producing upon the body as a whole, including such phenomena as fever, debility, delirium, restlessness, and so-called critical discharges of various kinds."

The subject of the second essay is separated from the preceding figure by almost five hundred years—half a millennium from Hippocrates to Galen. During that time great and far-reaching had been the changes of empire and society. The civilized world overrun by militant peoples became disorganized. Greece, so long proud of her intellectual ascendancy but now bowed in cowed subjection before barbarian aggression, sank to still lower intellectual levels by the sudden ease and wealth opened up to it through the conquests of Alexander and his successors. "In the air of imperialism, stirred by no other, original thought could not rise; and the mass of the Greek-speaking populations, rich and poor, gravitated to the level of the intellectual and emotional life of more or less well-fed slaves." The Romans, at a later period masters of the world, received the germs of higher culture from their neighbors, but in early republican days the conditions of militarism, aristocratic emulation, and relative poverty prevented development to any conspicuous degree. Roman life was made systematically agricultural and militarist by initial circumstances. Subsequently, when Rome, advancing in the career of conquest, had developed a large class with leisure for intellectual interests, it is noteworthy that it was not in the

direction of scientific achievements that its genius manifested itself.

The explanation of this is doubtless correctly given by Dr. Munford who says: "Among the Greeks medicine held a high place, for the Greek genius was most conspicuous in the affairs of civil life and the realm of the intellect. Among the Romans, military affairs were regarded as most worthy of the attention, and this worship of physical force stunted eventually the intellectual growth and pursuits. After the republic, the rise of the military aristocracy accentuated still more this tendency, and made permanent the inferior position of the learned professions, especially medicine. During nearly two thousand years this Roman influence maintained, for even after the rise to power of the Church of Rome the soldier continued to be regarded as the superior of the priest. First, the soldier; second, the priest; third, the lawyer; fourth, the merchant; fifth, the physician; and then after a long interval the surgeon, ranking with the humblest of craftsmen."

Unpropitious as were the political and social conditions from the decadence of Greece to the fall of the Roman empire for the prosecution of intellectual researches in the greater part of the western civilized world, a remarkable revival of learning was originated in Alexandria under the Ptolomies beginning in the fourth century B. C., and extending to the rise of the Mohometan power in the seventh century, A. D. It was an attempt to continue and develop under new conditions the old Hellenic culture. In this renascence medicine participated to a notable extent as shown by the work of Herophilus, the anatomist, Erasistratus, his contemporary and rival, and Galen, the most striking medical personality of the Roman period.

Perhaps the worst to be said of Galen "is that he assisted in preserving the health of Commodus, and the best, that he maintained much the same position in medicine as that occupied by Marcus Aurelius in philosophy. Fanciful as is such a comparison, it is certain that both men impressed themselves upon human thought for centuries: Galen growing dim in recent times—an authority no longer; Marcus Aurelius, the emperor philosopher, looming larger through the years." Although dominated by the teachings of Hippocrates, Galen's achievements are none the less remarkable. Through his animal experimentation he contributed to physiological knowledge; it has been said that he was our first great physiologist. Probably best known to most of us for his discovery of the function of arteries, it is curious that he asserted a fact which Harvey fifteen centuries later did not observe—that there is a terminal connection between the veins and arteries.

The third and fourth essays deal with Vesalius and Ambroise Paré, both born at the beginning of the 16th century, over 1300 years after the death of Galen. Galen's works were text-books still. While the sciences generally flourished to some extent among the Arabians, in the greater part of Europe medicine had fallen into the most deplorable state. This deterioration is by no means surprising when we consider the conditions which prevailed after the overthrow of the Roman empire. During the four

or five centuries succeeding this important event a period of greatest unrest existed. The five great nations of Europe evolving themselves out of chaotic materials into those social and political institutions, which constitute the machinery of the Middle Ages afforded little that was congenial for intellectual development. Once, however, languages formed, boundaries fixed, and methods of government tried, the "divine discontent" of the thinker for higher, nobler, and more rational possibilities manifested itself, first in the twelfth century which "saw a remarkable revival of interest in learning, almost worthy of the name of Renaissance in itself had it been more fruitful of results. In the bold speculations of Abelard it almost seemed as if Reason were about to re-assert its claims in opposition to Authority."

Backward as the progress of medicine had been it in some measure shared in this intellectual movement.

But at last the awakening came. "Very early in the fourteenth century Dante sang the swan song of the Middle Ages, and even as he sang it the world was turning restlessly in its sleep; the long slumber was disturbed by broken fragments of dream, gleams of light, echoes of long silent voices calling to it to rise in all the vigor of adolescence, to shake off, like Samson, the shackles that had bound it, to adventure forth in the glorious May morning of time, when all creation lay radiant and mysterious before the eyes of the newly awakened. It was a time of infinite possibilities, to which we may look back not without wistfulness—a time when new discoveries of man's latent powers and the beauty and wonder of the world around him were every day to be made, when new interests and new adventures beckoned to him on every side. We cannot put any date to this awakening; no abruptness marks the initiative of movements so great. We only know that the world slept, and that the world was awake. The first stirrings were shown in the growing discontent which would not be repressed in the brave words of Wiclif and Huss, and in the paintings of Giotto."

This was Europe's grand age, and the most significant epoch of human growth. To this day, as Taine says, we live from its sap, we only carry on its pressures and efforts.

Vesalius and Paré, both children of the Renaissance, casting tradition aside, marched on, resolved to see with their own eyes. Freed from the tyranny of mere theories and speculation, they turned to experience, to the world of concrete impressions, to things as they may be seen, heard and felt. Vesalius, concerned with anatomic researches made possible that development of surgery which in the hands of Hunter, Jean Louis Petit, Sir Ashley Cooper, Desault and others yielded such practical results. Paré although no great scientist, was a master clinician who brought to bear upon his task great common sense. He was the father of the art of surgery which remained essentially unchanged until two hundred and fifty-six years after his death or until the introduction of anesthetics.

Among the essays dealing with post Renaissance

medicine the two on Albrecht von Haller and John Hunter recall much that is significant and interesting. Of the influence of Haller on surgery too little has been said. It was he who first grasped its wide significance and showed that it is, as Mumford says, far more than a craft. "He brought to bear upon it a profound knowledge of anatomy, a keen-eyed devotion to physiology, an enthusiasm for pathologic anatomy. He showed the absurdity of the medieval custom which had divorced surgery from medicine and a liberal education, depriving it of the services of distinguished men and cultivated minds. By his example he did even more than by his preaching; he became a great experimental physiologist; through such endeavors he made possible the practical investigation of natural processes and through such investigations it has come about that numberless procedures of to-day are feasible and life-saving."

In forming an estimate of Hunter's work and of the influence which his labors have had on the improvement of surgery we are at once struck by the boldness and independence which he displayed in the pursuit of truth. To enumerate the various practical amendments of which he was the immediate author would scarcely do him justice. His claims, as Drewry Ottley says, are of a far higher nature. He, like Haller, taught us to bring the light of physiology "to bear upon the practice of our art, and by his writings, his teachings and his example, stimulated the numerous able followers to pursue the way he pointed out."

With the trail blazed by these epoch-makers of medicine the march of surgery may be partly traced in these essays through those less immediate products of the Renaissance—Sir Ashley Cooper, Sir Benjamin Brodie, and others to Sir Joseph Lister and modern surgery. If it should be suggested that much has been left unsaid in these delightful biographies and that the essays are far from exhausting the qualities of their subjects, we shall put the author under the protection of the genial Lafontaine, who says in the epilogue to the Contes:

"Bornons ici cette carrière;
Les longs contes me font peur;
Loin d'épuiser une matière,
On n'en doit prendre que la fleur."

A. J. L.

Confessio Medici. By the Writer of "The Young People." The Macmillan Company, New York.

That the latent literary faculty amongst medical men will leap into active existence under proper conditions, is evidenced by the appearance of this book by an anonymous author. The writer is evidently a man who, in the leisure of retirement, after a long and active medical career, has turned his attention to literature. The book consists of a number of essays variously designated "Vocation," "Hospital Life," "The Discipline of Practice," "The Spirit of Practice," "Retirement," etc. For felicity of phrase and leisurely meanderings about in the by-ways of literature ancient and modern, for its store of reminiscences culled from a full and rich medical experience, its flashes of quaint and unexpected humor and deep insight into human nature, its sympathy with and comprehension of the trials which beset the

pathway especially of the young practitioner, its sound advice and earnest plea for the preservation of the medical ideal, it is stamped as one of unusual literary value and human interest. Throughout, so strongly is it imbued with the personality of the author and so happily expressed are the thoughts and emotions which practice calls into being in all of us, that after perusing it, one puts it down feeling as though one had met an old and valued friend.

Though the book is meant mainly for the young man, every physician young and old should read it. They will be well repaid for their trouble, for it will be found a source of instruction, inspiration and delight.

K. I. L.

Essentials of Laboratory Diagnosis. Designed for Students and Practitioners. By Francis Ashley Faight, M. D., Director of the Laboratory of the Department of Clinical Medicine, and Assistant to the Professor of Clinical Medicine, Medico-Chirurgical College, etc., etc. Philadelphia, Pa. F. A. Davis Company, Publishers. 1909.

This manual contains a concise, practical account of the various laboratory methods commonly employed by the general practitioner. Each method is clearly described so that no difficulty ought to be experienced in carrying out the tests. There is a complete absence of all superfluous data, unnecessary detail, and of cumbersome methods many of which are too involved to be within the reach of the majority of practicing physicians. In every respect the work is a credit to the author and invaluable to those who from want of time or training cannot go into the matter more fully.

A. J. L.

Text Book of Hygiene. By George H. Rohe, M. D., Late Professor of Therapeutics, Hygiene, and Mental Diseases in the College of Physicians and Surgeons, Baltimore, etc., and Albert Robin, M. D., Professor of Pathology, Bacteriology and Hygiene, Medical Department Temple University, and Philadelphia Dental College, etc. Fourth Revised and Enlarged Edition. F. A. Davis Company, Philadelphia, 1908.

Since the appearance of the third edition of this deservedly popular work important advances have been made in hygiene and sanitary science which have made it imperative to revise parts in accord with modern scientific conceptions of the subject. The original aim of the senior editor to present a clear account of the principles and practice of preventive medicine has in this edition been maintained. The most important changes have been made in that portion of the text relating to the causation and prevention of infectious diseases—lines along which notable advances have been made in recent years. The authors have been fortunate in securing the co-operation of several contributors eminent in their lines of special study. Among these are Surgeon-General Walter Wyman of the U. S. Public Health and Marine Hospital Service who has revised the chapter on Quarantine; Dr. Francis W. Upshur of the University College of Medicine, Richmond, Va., who prepared the articles on School Hygiene, Clothing and Personal Hygiene; Surgeon-Major Walter D. McCaw of the Army Service who entirely rewrote the section on Military and Camp Hygiene; and Surgeon-Major Henry G. Beyer of the U. S. Army and Navy Medical School who is responsible for the part entitled Naval Hygiene.

A. J. L.

Hand-Book of Obstetrics. By R. Cadwallader, A. M., M. D., Assistant in Obstetrics, University of California, Medical Department. F. A. Davis Company, Philadelphia. 1908.

While some may question the wisdom of writing a book such as this, none will withhold praise for

the excellent manner in which the author has accomplished his task. Here we have a concise statement of obstetrical science and art well suited to the needs of students and those general practitioners who may desire a short account of the subject from a modern standpoint. Well arranged, written in an unusually clear and direct style, profusely illustrated, the volume leaves little to be desired although many will dissent from statements made or methods advocated by the author. Thus in the list of articles composing the physician's kit we would suggest replacing the oil-cloth by a Kelly pad; under the section entitled triplets a misstatement (probably a proofreader's error) is made concerning their frequency. Triplets do not occur about once in 89 times but according to the statistics of G. Veit about once in 7910 pregnancies.

In the section on Resuscitation of the Child, twelve different methods are enumerated including Laborde's which is misspelled Labarde's, but no mention is made of the recent work of Professor Schafer of the University of Edinburgh, in connection with this matter of artificial respiration. The subject of lacerations of the perineum is admirably handled but we cannot agree with the statement that tears involving the rectum should never be immediately repaired; most of us engaged in obstetrical work have seen brilliant results follow immediate repair if the tissues are not very edematous or bruised.

That manual extraction of the placenta is to be avoided if possible is unquestioned but that this "is one of the most dangerous of all obstetrical manoeuvres" has not been the experience of clean obstetricians. Other exceptions might be mentioned but after all they in no wise affect our judgment of the merits of this hand-book in which "clean hands and a pure heart" meet on common ground.

A. J. L.

Conservative Gynecology and Electro-Therapeutics.

A Practical Treatise on the Diseases of Women and Their Treatment by Electricity. By G. Betton Massey, M. D., Attending Surgeon to the American Oncologic Hospital, Philadelphia; Fellow and Ex-President of the American Electro-Therapeutic Association; etc. Sixth Revised Edition, 462 pages. F. A. Davis Company, Philadelphia. 1909.

When the early publications of Tripiet appeared in the middle of the last century the possibilities of electro-therapeutics in gynecological practice were scarcely realized; it remained for others, notably Apostoli, to show its applications in this connection. Nevertheless, while we are indebted to those who have investigated the subject for much suggestive and valuable information it is hardly probable that the matter has assumed proportions which warrant the publication of a work the size of this volume. It is incredible that anyone should have the temerity to tax the patience of the reader with so much language on a subject which has scarcely evolved beyond the stage of early impressions. Indeed, we suspect that here we have another glaring example of the modern, highly developed practice of "padding," systematically and consistently employed to the very end, even to the series of grotesque illustrations.

In this respect alone the usefulness of the book has been very seriously impaired but after all that is merely a matter of personal inconvenience which time and enterprise may overcome. Stripped of much verbiage and irrelevant material golden truths may be gleaned by the expert whose trained scent will enable him to disregard a mass of assumptions not justified by experience. To be enthusiastic about something is one thing; to judge it in terms of demonstrated facts is quite another. In enthusiasm for his pet therapeutic formula and panacea for the pelvic ills of woman the author is surely not lack-

ing, but of critical scientific discernment we find but few traces. In short the presentation is marred by the advocate's attitude and *parti pris* spirit.

On page 167 the author in discussing the relative merits of electricity and operative procedures in the treatment of uterine fibroids says: "With a mortality of one in four (by surgical removal) in the most skilled hands," etc. "Successful removal of the tumor necessitates removal of the ovaries also, thus destroying the distinctively feminine characteristics of the individual; produces a weak spot in the abdominal wall leading to hernia," etc. The statement with reference to the mortality of operations for fibroids clearly shows an ignorance which to say the least is appalling. We urge the author to look over the statistics of Olshausen whose mortality in 806 cases was 5.6% in 1897; those of Kelly with a mortality of 2% and those of countless others who have had equally excellent results. So far as the necessity for the extirpation of the ovaries is concerned the author's statement is equally inexact, and as to the occurrence of hernia this complication is nowadays a rare occurrence in the hands of clean and experienced operators.

Disappointing as is the general presentation of the subject we elect for strongest condemnation chapter XV, in which the author advises the cathaphoric method for the treatment of mammary cancer. Statements such as this, "The major application of the zinc-mercury cathaphoresis offers a most effective method for the destructive sterilization of mammary cancer in its early stages, enabling the operator to destroy all infected portions of the gland at once, without risk of the infective cells gaining access to the lymphatic spaces, as may happen in a cutting operation" are astounding. Any advice short of a radical operation by the knife in operable cases is certainly the result of the crassest ignorance if not indeed criminal. How any medical man in this day can take any other position with reference to this question is incomprehensible.

Of the absurdity and danger of the views of the author with reference to ectopic pregnancy we shall say nothing, fearful of insulting the intelligence of our readers, nor shall we comment on the views expressed on the subject of rectal cancer or many other conditions. Much that we have in mind is best left unsaid, for your sake, gentle reader, not the author's.

A. J. L.

Appendicitis and Other Diseases of the Vermiform Appendix. By Howard Kelly, M. D. J. B. Lippincott Company. 1909.

At the time of the appearance, about four years ago, of the first edition of this volume it was extensively reviewed, the reviews on the whole being very favorable although certain features were freely and justly criticized. These related mainly to the practical side of the subject especially the surgical handling of cases, particularly suppurative cases. In the present edition, however, the author has considerably revised the sections dealing with this phase of the question to meet the needs of most men who would care to undertake the reading of so comprehensive a work. With the reviews of the first edition still in mind it seems scarcely necessary to go again into a detailed analysis of the book.

As in the earlier reprint considerable space is devoted to the consideration of the anatomy and pathology of appendiceal affections; likewise the clinical manifestations of the various types of appendicitis are extensively dealt with, and the surgical treatment advocated represents in a general way the position of most operators. While probably of not very great importance in practice on account of their rarity the various primary neoplasms of the appendix are well considered although as yet our knowledge of these growths is not very considerable. Altogether, the book is an excellent résumé of our knowledge of appendiceal lesions, their clinical

manifestations and operative treatment. Although not indispensable to the surgeon a careful study of it will amply repay any medical man who takes the trouble and time to do this. In the matter of illustrations we here have another example of the high standard of graphic art made possible by the skill and intelligence of Broedel and his co-workers.

A. J. L.

Legal Medicine and Toxicology. By R. L. Emerson, A. B., M. D., member of the Massachusetts Medico-Legal Society; formerly Instructor in Physiological Chemistry, Harvard University Medical School, and Assistant in Clinical Pathology, Boston City Hospital. D. Appleton and Company. 1909. New York and London.

This, the latest work on legal medicine, contains an admirable account of the subject, especially from the standpoint of practice in this country. Adapted as much as possible to the practical needs of the practitioner who may now and again suddenly find himself confronted with a medico-legal case, the author has at the same time given a most succinct description of the principles and practice of forensic medicine from the modern standpoint. In fact, we know of no single volume in the English language which gives so scientific and clear a résumé of this altogether too much neglected subject. Not only is the work reliable in statement of facts, but the literary style is deserving of highest commendation. In short, here we have a volume which we recommend to all medical men whether interested in the subject by choice, or by power of the law.

A. J. L.

A Manual of Practical X-Ray Work. By David Arthur, M. D., D. P. H. and Jno. Muir, B. Sc., M. B., Ch. B. & B. Sc. Rebman Co., Publishers, New York.

This small book has a great deal of practical information. The sections which explain the various means used to obtain the X-ray are particularly plain. The table giving the times for exposure is a useful one though the time given for the hip in comparison to a chest plate seems rather short. This is also true in the kidney and ureteral work.

The use of the iris diaphragm is strongly recommended but we consider the tube diaphragm far superior and in some instances indispensable. The fact that this device is not used is perhaps accountable for the statement (so opposite to our experience), "Radiography of the ureters presents great difficulty and results in search for calculi in them are still very uncertain."

Much of the work in England seems to be done with the tube below the patient, a method of procedure in which we fail to see any advantage. The paragraphs devoted to the interpretation of plates are short, so short that they are of little service to any one not already familiar with plates and the points mentioned. The therapeutic portion is conservative and reliable.

G. L. Painter.

Confessions of a Neurasthenic. By Wm. Taylor Marrs, M. D. By F. A. Davis, Publishers, Philadelphia.

Atlas and Text-Book of Human Anatomy. Volume I. By Professor J. Sobotta, of Wurzburg. Edited, with additions, by J. Playfair McMurich, A. M., Ph. D., Professor of Anatomy at the University of Michigan, Ann Arbor. Quarto volume of 258 pages, containing 320 illustrations, mostly all in colors. Philadelphia and London. W. B. Saunders Company. 1906. Cloth, \$6.00 net; Half Morocco, \$7.00 net.

This is a handsome book and is of unquestionable value in the study of anatomy. It is beautifully il-

illustrated while the text is clear and concise. The volume before us treats of bones, ligaments, joints and muscles and is so arranged and adapted to the requirements of the student as to make this otherwise dry part of anatomy interesting, in fact attractive.

Treves' Operative Surgery. New (3d) Edition. A Manual of Operative Surgery. By Sir Frederick Treves, Bart., G. C. V. O., C. B., LL. D., F. R. C. S., Sergeant-Surgeon to H. M. the King, Surgeon-in-Ordinary to H. R. H. the Prince of Wales, Consulting Surgeon to the London Hospital; and Jonathan Hutchinson, F. R. C. S., Surgeon to the London Hospital. New (3d) Edition, revised and rewritten. In two octavo volumes. Volume I, 775 pages, with 193 engravings and 17 full-page plates. Half-morocco, \$6.50 net. Lea & Febiger, Publishers, Philadelphia and New York. 1909.

Diet in Health and Disease. By Julius Friedenwald, M. D., Clinical Professor of Diseases of the Stomach in the College of Physicians and Surgeons, Baltimore; and John Ruhrah, M. D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Second Revised Edition. Octavo of 728 pages. Philadelphia and London: W. B. Saunders Company. 1906. Cloth, \$4.00 net; Half Morocco, \$5.00 net. W. B. Saunders Company, Philadelphia and London.

This is a practical, comprehensive work on Diet, prepared to meet the needs of the general practitioner, the medical student, and the trained nurse. It contains a complete account of food stuffs, their uses and chemical composition. The dietetic management of every disease in which diet plays a part in treatment is carefully considered, the article on diet in diseases of the digestive organs containing numerous diet lists and explicit instructions for administration. The feeding of infants and children, of patients before and after anesthesia and surgical operations, and the latest methods of feeding after gastro-intestinal operations, are all taken up in detail. The subject of nutritive enemata is given completely, with recipes and full instructions as to technic.

A Text-Book on the Practice of Gynecology. For Practitioners and Students. By W. Easterly Ashton, M. D., LL. D., Professor of Gynecology in the Medico-Chirurgical College of Philadelphia. Third Edition, Thoroughly Revised. Octavo of 1096 pages, with 1057 original line drawings. Philadelphia and London. W. B. Saunders Company. 1906. Cloth, \$6.50 net; Half Morocco, \$7.50 net. W. B. Saunders Company, Philadelphia and London.

In this, the third edition of this text-book, the subject-matter has undergone a thorough revision and represents the author's present views on the advances made in gynecology and abdominal surgery. The entire book reflects the author's own opinions on both the medical and surgical aspects of gynecology.

A Text-Book of Obstetrics. By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania. Fifth Revised Edition. Octavo of 915 pages, with 753 illustrations. 39 of them in colors. Philadelphia and London. W. B. Saunders Company. 1906. Cloth, \$5.00 net; Half Morocco, \$6.00 net. W. B. Saunders Company, Philadelphia and London.

Obstetrics for Nurses. By Joseph B. DeLee, M. D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. Third Revised Edition. 12 mo. of 512 pages, fully illustrated. Philadelphia and London. W. B. Saunders Company. 1908. Cloth, \$2.50 net. W. B. Saunders Company, Philadelphia and London.

While this work was written particularly for

nurses, the medical student also will find in it much that is useful and instructive.

The Elements of the Science of Nutrition. By Graham Lusk, Ph. D., M. A., F. R. S. (Edin.), Professor of Physiology at the University and Bellevue Hospital Medical College, New York City. Octavo of 326 pages, illustrated. Philadelphia and London. W. B. Saunders Company. 1906. Cloth, \$2.50 net. W. B. Saunders Company, Philadelphia and London.

Prevalent Diseases of the Eye. By Samuel Theobald, M. D., Clinical Professor of Ophthalmology and Otology, Johns Hopkins University. Octavo of 551 pages, with 219 text-illustrations, and 10 colored plates. Philadelphia and London. W. B. Saunders Company. 1906. Cloth, \$4.50 net; Half Morocco, \$5.50 net. W. B. Saunders Company, Philadelphia and London.

Politzer on the Ear. New (5th) Edition. A Text-book of the Diseases of the Ear, for Students and Practitioners. By Professor Dr. Adam Politzer, Imperial-Royal Professor of Aural Therapeutics in the University of Vienna; Chief of the Imperial-Royal University Clinic for Diseases of the Ear in the General Hospital, Vienna, etc. Translated at the personal request of the Author and edited by Milton J. Ballin, Ph. B., M. D., Assistant Surgeon, New York Ophthalmic and Aural Institute; Assistant Surgeon, Mount Sinai Dispensary, Ear, Nose and Throat Department, etc., and Clarence L. Heller, M. D. Fifth Edition, enlarged and thoroughly revised. Octavo, 892 pages, with 337 original illustrations. Cloth, \$8.00, net. Lea & Febiger, Publishers, Philadelphia and New York. 1909.

Dorland's American Illustrated Medical Dictionary. A new and complete dictionary of the terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, and kindred branches; with over 100 new and elaborate tables and many handsome illustrations. Fourth Revised Edition. By W. A. Newman Dorland, M. D. Large octavo, over 850 pages, with 2000 new terms. Philadelphia and London. W. B. Saunders Company. 1906. Flexible leather, \$4.50 net; indexed, \$5.00 net. W. B. Saunders Company. Philadelphia and London.

It is practically unabridged, yet, by the use of thin bible paper and flexible morocco binding, it is only 1¼ inches thick. The result is a truly luxurious specimen of book-making. This edition contains over 2000 new words.

Thornton's Pocket Medical Formulary. New (9th) edition. Containing about 2,000 prescriptions, with indications for their use. In one leather-bound volume. Price, \$1.50 net. Lea & Febiger, publishers, Philadelphia and New York. 1909.

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